Hassan Ghasemzadeh

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Contact Information

Arizona State University
ASU Health Futures Center
College of Health Solutions (CHS)
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Current Appointment

Arizona State University, Phoenix, AZ 2021–Present

Associate Professor & Program Director, College of Health Solutions
Director, Embedded Machine Intelligence Lab (EMIL)
Graduate Faculty: Biomedical Informatics and Data Science, Computer Science, Computer Engineering, Biomedical Engineering

Research Interests

Digital Health, Machine Learning, Embedded Systems, Algorithms

Education

- **PostDoc**, Computer Science, **University of California Los Angeles**, Los Angeles, CA
- **Ph.D.**, Computer Engineering, **University of Texas at Dallas**, Richardson, TX
- **M.Sc.**, Computer Engineering, **University of Tehran**, Tehran, Iran
- **B.Sc.**, Computer Engineering, **Sharif University of Technology**, Tehran, Iran

Awards & Honors

- **2024** Research Award, ASU College of Health Solutions
- **2024** Best Poster Award, ASU College of Health Solutions Faculty Research Day
- **2022** Best Paper Honorable Mention Award, BSN Conference
- **2020** Best Wearables Note Award, UbiComp/ISWC Conference
- **2020** Best Paper Runner-Up Award, CVPR Workshop on Continual Learning
- **2019** Early Tenure and Promotion, WSU School of EECS
- **2019** Best Paper Award Nomination, ACM Transactions on Interactive Intelligent Systems
- **2019** Academic Advisor Excellence Award, WSU GPSA
- **2019** Best Paper Award, IEEE Council on Electronic Design Automation (CEDA)
- **2018** Early Career Development Award, National Science Foundation (NSF CAREER)
- **2018** Early Career Award, WSU School of EECS
- **2018** Outstanding Communication, Connection & Engagement Award, WSU VCEA
- **2017** Best Paper Award Nomination, IEEE/ACM DATE Conference
- **2017** Community Health Impact Fellowship, Pullman Regional Hospital
- **2016** Research Initiation Initiative Award, National Science Foundation (NSF CRII)
- **2015** Travel Award, NSF Early Career Investigators Workshop on CPS in Smart Cities
- **2012** Main architect of WANDA, licensed to WANDA, Inc., acquired by EMV Capital in 2019.
- **2011** Algorithm architect of Sense4Baby, licensed to Sense4Baby, acquired by AirStrip in 2014.
- **2011** Best Paper Award, IEEE RTAS Conference
- **2011** Faculty of the Year Award, San Diego State University (SDSU), Biomedical Informatics
- **2010** Postdoctoral Fellowship, West Health Institute
- **2009** Best Poster Award, ACM HotMobile
- **2008** Student Travel Grant, IEEE MASS conference
- **2006** Excellence in Teaching Award, CSE Department, Azad University, Damavand
- **2005** Excellence in Teaching Award, CSE Department, Azad University, Damavand
- **2003** Founding Faculty & Chair, CSE Department, Azad University, Damavand

Professional Experience

Arizona State University, Phoenix, AZ 08/2021–Present

- Associate Professor & Program Director, College of Health Solutions
- Director, Embedded Machine Intelligence Lab (EMIL)
- Graduate Faculty: Biomedical Informatics and Data Science, Computer Science, Computer Engineering, Biomedical Engineering

Washington State University, Pullman, WA

- Adjunct Faculty, School of Electrical Engineering & Computer Science 08/2021–Present
- Associate Professor, School of Electrical Engineering & Computer Science 08/2019–08/2021
- Assistant Professor, School of Electrical Engineering & Computer Science 01/2014–07/2019
- Adjunct Faculty, School of Electrical Engineering & Computer Science 07/2013–12/2013

Netscientific America, Inc., Harrison, NY 01/2014–10/2014

- Consultant
- WANDA Remote Health Monitoring Technology

University of California Los Angeles, Los Angeles, CA 09/2011–12/2013

- Postdoctoral Research Manager, UCLA Computer Science Department
- Main architect of WANDA, licensed to WANDA, Inc. (2013), acquired by EMV Capital (2019)
- Faculty Supervisor: Majid Sarrafzadeh

San Diego State University, San Diego, CA 01/2011–12/2012

- Adjunct Professor, Biomedical Informatics
- College of Sciences

West Health Institute, La Jolla, CA 06/2010–08/2011

- Postdoctoral Fellow, Research Engineering Division
- Algorithm architect of Sense4Baby, licensed to Sense4Baby, Inc. (2012), acquired by AirStrip, Inc. (2014)
- Mentors: Mehran Mehregany and Steven Garverick

University of Texas at Dallas, Richardson, TX 01/2007–05/2010

- PhD in Computer Engineering; Research & Teaching Assistant
- Advisor: Roozbeh Jafari
- Topic: Power-Aware Signal Processing in Body Sensor Networks

Azad University, Damavand, Tehran, Iran 09/2003–12/2006

- Founding Faculty and Department Chair
- Department of Computer Science and Engineering

Bamdad Computer Co., Tehran, Iran

- Vice President of Network and Application Operations 07/2001–12/2006
- IT Manager & System Administrator 06/1997–06/2001

University of Tehran, Tehran, Iran 09/1998–09/2001

- MS in Computer Engineering
- Adviser: Prof. Zeinalabedin Navabi

- Topic: VLSI Implementation of Cache Replacement Algorithms

Sharif University of Technology, Tehran, Iran 09/1993–02/1998

- BS in Computer Engineering
- Adviser: Prof. Shaahin Hessabi
- Topic: Design and Implementation of a Programmable Function Generator

Publications

Journal Articles

- **[J67]** Reza Rahimi Azghan, Nicholas C Glodosky, Ramesh Kumar Sah, Carrie Cuttler, Ryan J McLaughlin, Michael J Cleveland, Hassan Ghasemzadeh, "CUDLE: Learning Under Label Scarcity to Detect Cannabis Use in Uncontrolled Environments using Wearables", accepted for publication in *IEEE Sensors*, December 2024. [2022 Impact Factor: 4.324]
- **[J66]** Nicholas C Glodosky, Michael J Cleveland, Reza Rahimi Azghan, Hassan Ghasemzadeh, Ryan J McLaughlin, Carrie Cuttler, "Multimodal Examination of Daily Stress Rhythms in Chronic Cannabis Users", *Psychopharmacology*, pp. 1–24, 2024. [2023 Impact Factor: 3.5]
- **[J65]** Ramesh Kumar Shah, Hassan Ghasemzadeh, "Adversarial Transferability in Embedded Sensor Systems: An Activity Recognition Perspective", accepted for publication in *ACM Transactions on Embedded Computing Systems (TECS)*, January 2024. [2023 Impact Factor: 2.25]
- **[J64]** Asiful Arefeen, Ali Akbari, Seyed Iman Mirzadeh, Roozbeh Jafari, Behrooz Shirazi, Hassan Ghasemzadeh, "Inter-Beat Interval Estimation with Tiramisu Model: A Novel Approach with Reduced Error", *ACM Transactions on Computing for Healthcare*, vol. 5, no. 1, article 2, January 2024. [2022 Impact Factor: 3.26]
- **[J63]** Ramesh Kumar Sah, Michael J Cleveland, Hassan Ghasemzadeh, "Stress Monitoring in Uncontrolled Environments", accepted for publication in *IEEE Biomedical and Health Informatics (JBHI)*, vol. 27, no. 12, pp. 5699–5709, December 2023. [2023 Impact Factor: 7.021]
- **[J62]** Parastoo Alinia, Asiful Arefeen, Zhila Esna Ashari, Seyed Iman Mirzadeh, Hassan Ghasemzadeh, "Model-Agnostic Structural Transfer Learning for Cross-Domain Autonomous Activity Recognition", *Sensors*, vol. 23, no. 14, July 2023. [2023 Impact Factor: 3.847]
- **[J61]** Ramin Fallahzadeh, Zhila Esna Ashari, Parastoo Alinia, Hassan Ghasemzadeh, "Personalized Activity Recognition using Partially Available Target Data", *IEEE Transactions on Mobile Computing (TMC)*, vol. 22, no. 1, pp. 374–388, January 2023. [2023 Impact Factor: 7.9]
- **[J60]** Seyed Iman Mirzadeh, Asiful Arefeen, Jessica Ardo, Ramin Fallahzadeh, Bryan Minor, Jung-Ah Lee, Janett A. Hildebrand, Diane Cook, Hassan Ghasemzadeh, Lorraine S. Evangelista, "Use of Machine Learning to Predict Medication Adherence in Individuals at Risk for Atherosclerotic Cardiovascular Disease", *Elsevier Smart Health Journal*, 2022. [2021 Impact Factor: 2.70]
- **[J59]** Mahdi Pedram, Ramesh Kumar Sah, Seyed Ali Rokni, Marjan Nourollahi, Hassan Ghasemzadeh, "Probabilistic Cascading Classifier for Energy-Efficient Activity Monitoring in Wearables", *IEEE Sensors Journal (JSEN)*, vol. 22, no. 13, pp. 13407–13423, July 2022. [2021 Impact Factor: 4.325]

- [J58] Zhila Esna Ashari, Naomi S. Chaytor, Diane J. Cook, Hassan Ghasemzadeh, "Memory-Aware Active Learning in Mobile Sensing Systems", *IEEE Transactions on Mobile Computing (TMC)*, vol. 21, no. 1, pp. 181–195, January 2022. [2023 Impact Factor: 7.9]
- [J57] Alireza Ghods, Armin Shahrokni, Hassan Ghasemzadeh, Diane Cook, "The remote monitoring of gastrointestinal cancer patients' performance status and burden of symptoms via a consumer-based activity tracker: qualitative focus group study", *Journal of Medical Internet Research Cancer (JMIR Cancer)*, 2021. [Impact Factor: 4.7]
- [J56] Parastoo Alinia, Ramesh K. Sah, Michael McDonell, Patricia Pendry, Sara Parent, Hassan Ghasemzadeh, Michael J. Cleveland, "Associations between Physiological Signals Captured using Wearable Sensors and Self-Reported Outcomes among Patients in AUD Recovery: Development and Usability Study", *Journal of Medical Internet Research*, 2021. [2020 Impact Factor: 5.43]
- [J55] Mahdi Pedram, Seyed Iman Mirzadeh, Seyed Ali Rokni, Ramin Fallahzadeh, Diane Myung kyung Woodbridge, Sunghoon Ivan Lee, Hassan Ghasemzadeh, " LIDS: Mobile System to Monitor Type and Volume of Liquid Intake", *IEEE Sensors Journal (JSEN)*, vol. 21, no. 18, pp. 20750–20763, September 15, 2021. [2021 Impact Factor: 4.325]
- [J54] Jessica Ardo, Jung-Ah Lee, Janett A. Hildebrand, Diana Guijarro, Hassan Ghasemzadeh, Anna Strömberg, Lorraine S. Evangelista, "Codesign of a Cardiovascular Disease Prevention Text Message Bank for Older Adults", *Patient Education and Counseling*, 2021. [2019 Impact Factor: 2.607]
- [J53] Seyed Ali Rokni, Marjan Nourollahi, Parastoo Alinia, Mahdi Pedram, Seyed Iman Mirzadeh, Hassan Ghasemzadeh, "TransNet: Minimally-Supervised Deep Transfer Learning for Dynamic Adaptation of Wearable Systems", *ACM Transactions on Design Automation of Electronic Systems (TODAES)*, vol. 26, no. 1, article 5, pp. 1–31, January 2021.
- [J52] Parastoo Alinia, Ramin Fallahzadeh, Christopher Connolly, Hassan Ghasemzadeh, "ParaLabel: Autonomous Parameter Learning for Cross-Domain Step Counting in Wearable Sensors", *IEEE Sensors Journal (JSEN)*, vol. 20, no. 23, pp. 13867–13879, December 2020. [2019 Impact Factor: 3.076] (**Featured Article of Issue 23**)
- [J51] Parastoo Alinia, Ali Samadani, Mladen Milosevic, Hassan Ghasemzadeh, Saman Parvaneh, "Pervasive Lying Posture Tracking", *Sensors*, October 2020. [2019 Impact Factor: 3.275]
- [J50] Mahdi Baghbanzadeh, Dewesh Kumar, Sare I Yavasoglu, Sydney Manning, Ahmad Ali Hanafi-Bojd, Hassan Ghasemzadeh, Ifthekar Sikder, Dilip Kumar, Nisha Murmu, Ubydul Haque, "Malaria epidemics in India: Role of climatic condition and control measures", *Science of The Total Environment*, vol. 712, 136368 pages, April 2020. [2018 Impact Factor: 5.589]
- [J49] Ayca Aygun, Hassan Ghasemzadeh, Roozbeh Jafari, "Robust Interbeat Interval and Heart Rate Variability Estimation Method from Various Morphological Features using Wearable Sensors", *IEEE Journal of Biomedical and Health Informatics (JBHI)*, vol. 24, no. 8, pp. 2238–2250, August 2020. [2019 Impact Factor: 4.217]
- [J48] Niloofar Hezarjaribi, Sepideh Mazrouee, Saied Hemati, Naomi Chaytor, Martine Perrigue, Hassan Ghasemzadeh, "Human-in-the-Loop Learning for Personalized Diet Monitoring from Unstructured Mobile Data", *ACM Transactions on Interactive Intelligent Systems (TiiS)*, Article No. 23, November 2019. (**2019 ACM TiiS Best Paper Award Nominee**)
- [J47] Shervin Hajiamini, Behrooz Shirazi, Aaron Crandall, Hassan Ghasemzadeh, "A Dynamic Programming Framework for DVFS-based Energy-Efficiency in Multicore Systems", accepted

for publication in *IEEE Transactions on Sustainable Computing (TSUSC)*, vol. 5, no. 1, pp. 1–12, January–March 2020.

- **[J46]** Seyed Ali Rokni, Hassan Ghasemzadeh, "Share-n-Learn: A Framework for Sharing Activity Recognition Models in Wearable Systems with Context-Varying Sensors", *ACM Transactions on Design Automation of Electronic Systems (TODAES)*, vol. 24, no. 4, article 39, April 2019.
- **[J45]** Yuchao Ma, Zhila Esna Ashari, Mahdi Pedram, Navid Amini, Daniel Tarquinio, Kouros Nouri-Mahdavi, Mohammad Pourhomayoun, Robert Catena, Hassan Ghasemzadeh, "CyclePro: A Robust Framework for Domain-Agnostic Gait Cycle Detection", *IEEE Sensors Journal (JSEN)*, vol. 19, no. 10, pp 3751–3762, May 2019. [2016 Impact Factor: 2.512]
- **[J44]** Josue Ortiz,, Ramin Fallahzadeh, Mahdi Pedram, Jose L. Risco-Martin, Jose M. Moya, Jose L. Ayala, Hassan Ghasemzadeh, "Toward Ultra-Low-Power Remote Health Monitoring: An Optimal and Adaptive Compressed Sensing Framework for Activity Recognition", *IEEE Transactions on Mobile Computing (TMC)*, vol. 18, no. 3, pp. 658–673, March 2019. [2017 Impact Factor: 4.098] (**Recipient of IEEE CEDA Spain Chapter Best Paper Award**)
- **[J43]** Keyvan Sasani, Helen N. Catanese, Alireza Ghods, Seyed Ali Rokni, Hassan Ghasemzadeh, Robert J. Downey, Armin Shahrokni, "Gait Speed and Survival of Older Surgical Patient with Cancer: Prediction after Machine Learning", *Journal of Geriatric Oncology*, vol. 10, no. 1, pp 120-125, January 2019. [2017 Impact Factor: 3.359]
- **[J42]** Armin Shahrokni, Ronald J. Maggiore, Hassan Ghassemzadeh, "New Technologies in Geriatric Oncology Care", *Journal of Geriatric Oncology*, vol. 9, no. 6, pp 687-–689, November 2018. [2017 Impact Factor: 3.359]
- **[J41]** Katayoun Neshatpour, Maria Malik, Avesta Sasan, Setareh Rafatirad, Tinoush Mohsenin, Hassan Ghasemzadeh, Houman Homayoun, "Energy-Efficient Acceleration of MapReduce Applications using FPGAs", *Journal of Parallel and Distributed Computing*, vol. 119, pp 1–17, September 2018. [2016 Impact Factor: 1.930]
- **[J40]** Ramin Fallahzadeh, Hassan Ghasemzadeh, "Trading-Off Power Consumption and Prediction Performance in Wearable Motion Sensors: An Optimal and Real-Time Approach", *ACM Transactions on Design Automation of Electronic Systems (TODAES)*, vol. 23, no. 5, article 67, October 2018. [2016 Impact Factor: 0.850]
- **[J39]** Maria Malik, Katayoun Neshatpour, Setareh Rafatirad, Rajiv V.Joshi, Tinoosh Mohsenin, Hassan Ghasemzadeh, Houman Homayoun, "Big vs Little Core for Energy-Efficient Hadoop Computing", *Journal of Parallel and Distributed Computing*, vol. 129, pp. 110–124, July 2019. [2016 Impact Factor: 1.930]
- **[J38]** Ramin Fallahzadeh, Seyed Ali Rokni, Hassan Ghasemzadeh, Enrique Soto, Armin Shahrokni, "Digital Health for Geriatric Oncology", *Journal of Clinical Oncology: Clinical Cancer Informatics (JCO CCI)*, June 29, 2018.
- **[J37]** Ramin Fallahzadeh, Hassan Ghasemzadeh, Armin Shahrokni, "Electronic Assessment of Physical Decline in Geriatric Cancer Patients", accepted for publication in *Current Oncology Reports*, February 2018. [2016 Impact Factor: 2.608]
- **[J36]** Shervin Hajiamini, Behrooz Shirazi, Aaron Crandall, Hassan Ghasemzadeh, Chris Cain, "Impact of Cache Voltage Scaling on Energy-Time Pareto Frontier in Multicore Systems", *Sustainable Computing: Informatics and Systems*, vol. 18, pp. 54–65, March 2018. [2016 Impact Factor: 1.800]

- **[J35]** Niloofar Hezarjaribi, Sepideh Mazrouee, Hassan Ghasemzadeh, "Speech2Health: A Mobile Framework for Monitoring Dietary Composition from Spoken Data", *IEEE Journal of Biomedical and Health Informatics (JBHI)*, vol. 22, no. 1, pp. 252–264, January 2018. [2016 Impact Factor: 3.451]
- **[J34]** Seyed Ali Rokni, Hassan Ghasemzadeh, "Autonomous Training of Activity Recognition Algorithms in Mobile Sensors: A Transfer Learning Approach in Context-Invariant Views", *IEEE Transactions on Mobile Computing (TMC)*, vol. 17, no. 8, pp. 1764–1777, August 2018. [2016 Impact Factor: 3.822] **(Featured Article of August 2018 Issue)**
- **[J33]** Parastoo Alinia, Chris Cain, Ramin Fallahzadeh, Armin Shahrokhi, Diane Cook, Hassan Ghasemzadeh, "How Accurate Your Activity Tracker Is? A Comparative Study of Step Counts in Low-Intensity Physical Activities", *Journal of Medical Internet Research (JMIR)*, vol. 5, no. 8, August, 2017. [2016 Impact Factor: 5.175]
- **[J32]** Ramin Fallahzadeh, Yuchao Ma, Hassan Ghasemzadeh, "Context-Aware System Design for Remote Health Monitoring: An Application to Continuous Edema Assessment", *IEEE Transactions on Mobile Computing (TMC)*, vol. 16, no. 8, pp. 2159–2173, August 2017. [2016 Impact Factor: 3.822]
- **[J31]** Raffaele Gravina, Parastoo Alinia, Hassan Ghasemzadeh , Giancarlo Fortino, "Multi-sensor Fusion in Body Sensor Networks: State-of-the-Art and Research Challenges", *Information Fusion*, vol. 35, pp. 68–80, May 2017. [2016 Impact Factor: 5.667]
- **[J30]** Lorraine Evangelista, Hassan Ghasemzadeh, Jung-Ah Lee, Ramin Fallahzadeh, Majid Sarrafzadeh, Debra Moser, "Predicting Adherence to Use of Remote Health Monitoring Systems in a Cohort of Patients with Chronic Heart Failure", *Technology and Health Care*, vol. 25, no. 3, pp. 425–433, June 2017. [2016 Impact Factor: 0.724]
- **[J29]** Yuchao Ma, Navid Amini, Hassan Ghasemzadeh, "Wearable Sensors for Gait Pattern Examination in Glaucoma Patients", *Microprocessors and Microsystems Special Issue on Advanced Systems in Healthcare, Wellness and Personal Assistance (ASHWPA)*, vol. 46, part A, pp. 67—74, October 2016. [2016 Impact Factor: 1.025]
- **[J28]** Yuchao Ma, Ramin Fallahzadeh, Hassan Ghasemzadeh, "Glaucoma-Specific Gait Pattern Assessment Using Body-Worn Sensors", *IEEE Sensors Journal (JSEN)*, vol. 16, no. 16, pp. 6406–64156, August 2016. [2016 Impact Factor: 2.512]
- **[J27]** Sunghoon Ivan Lee, Charles Li, Haydn A. Hoffman, Derek S. Lu, Ruth Getachew, Bobak Mortazavi, Jordan H. Garst, Marie Espinal, Mehrdad Razaghy, Nima Ghalehsari, Brian H. Paak, Amir A. Chavam, Marwa Afridi, Arsha Ostowari, Hassan Ghasemzadeh, Daniel C. Lu, Majid Sarrafzadeh, "Quantitative Assessment of Hand Motor Function in Cervical Spinal Disorder Patients Using Target Tracking Tests", *Journal of Rehabilitation Research and Development (JRRD)*, vol. 53, no. 6, pp. 1007–10022, July 2016. [2016 Impact Factor: 1.277]
- **[J26]** Parastoo Alinia, Ramyar Saeedi, Ali Rokni, Hassan Ghasemzadeh, "A Reliable and Reconfigurable Signal Processing Framework for Estimation of Metabolic Equivalent of Task in Wearable Sensors", *IEEE Journal of Selected Topics in Signal Processing (J-STSP)*, vol. 10, no. 5, pp. 842–853, May 2016. [2016 Impact Factor: 5.301]
- **[J25]** Hassan Ghasemzadeh, Ramin Fallahzadeh, Roozbeh Jafari, "A Hardware-Assisted Energy-Efficient Processing Model for Activity Recognition using Wearable Sensors", *ACM Transactions on Design Automation of Electronic Systems (TODAES)*, vol. 21, no. 4, Article 58, 27 pages, June 2016. [2016 Impact Factor: 0.850]

- **[J24]** Lorraine S. Evangelista, Debra K. Moser, Jung-Ah Lee, Alison A. Moore, Hassan Ghasemzadeh, Majid Sarrafzadeh, Carol M. Mangione, "Examining Older Adults' Perceptions of Usability and Acceptability of Remote Monitoring Systems to Manage Chronic Heart Failure", *Gerontology and Geriatric Medicine (GGM)*, vol. 1, November 2015.
- **[J23]** Hassan Ghasemzadeh, Navid Amini, Ramyar Saeedi, Majid Sarrafzadeh, "Power-Aware Computing in Wearable Sensor Networks: An Optimal Feature Selection", *IEEE Transactions on Mobile Computing (TMC)*, vol. 14, no. 4, pp. 800–812, 2015. [2016 Impact Factor: 3.822]
- **[J22]** Armin Shahrokni, Sanam Mahmoudzadeh, Ramyar Saeedi, Hassan Ghasemzadeh, "Older People with Access to Handheld Devices; Who Are They?", *Telemedicine and e-Health (TMJ)*, vol. 21, no. 7, pp. 550–556, July 2015. [2016 Impact Factor: 2.031]
- **[J21]** Bobak Mortazavi, Mohammad Pourhomayoun, Hassan Ghasemzadeh, Roozbeh Jafari, Christian K. Roberts, Majid Sarrafzadeh, "Context-Aware Data Processing to Enhance Quality of Measurements in Wireless Health Systems: An Application to MET Calculation of Exergaming Actions", *IEEE Internet of Things Journal*, vol. 2, no. 1, pp. 84–93, February 2015. [2016 Impact Factor: 7.596]
- **[J20]** Lorraine S. Evangelista, JA Lee, Alison A. Moore, Marjan Motie, Hassan Ghasemzadeh, Majid Sarrafzadeh, Carol M. Mangione, "Examining the Effects of Remote Monitoring Systems on Activation, Self-Care, and Quality of Life in Older Patients with Chronic Heart Failure", *Journal of Cardiovascular Nursing*, vol. 30, no. 1, pp. 51–57, January–February 2015. [2016 Impact Factor: 2.105]
- **[J19]** Nabil Alshurafa, Jo-Ann Eastwood, Suneil Nyamathi, Jason J. Liu, Wenyao Xu, Hassan Ghasemzadeh, Mohammad Pourhomayoun, Majid Sarrafzadeh, "Improving Compliance in a Remote Health Monitoring System using Battery Optimization", *IEEE Journal of Biomedical and Health Informatics (JBHI)*, vol. 19, no. 1, pp. 57–63, January 2015. [2016 Impact Factor: 3.451]
- **[J18]** Hassan Ghasemzadeh, Pasquale Panuccio, Simone Trovato, Giancarlo Fortino, Roozbeh Jafari, "Power-Aware Action Recognition in Distributed Wearable Systems: A Boosting Approach for Sensor Selection", *IEEE Transactions on Human-Machine Systems (THMS)*, vol. 44, no. 4, pp. 537–544, August 2014. [2016 Impact Factor: 2.493]
- **[J17]** Bobak Mortazavi, Suneil Nyamathy, Sunghoon Ivan Lee, Thomas Wilkerson, Hassan Ghasemzadeh, Majid Sarrafzadeh, "Near-Realistic Mobile Exergames with Wireless Wearable Sensors", *IEEE Journal of Biomedical and Health Informatics (JBHI)*, vol. 18, no. 2, pp. 449–456, March 2014. **(March Featured Article)** [2016 Impact Factor: 3.451]
- **[J16]** Sunghoon Lee, Hassan Ghasemzadeh, Bobak Mortazavi, Majid Sarrafzadeh, "Pervasive Assessment of Motor Function: A Lightweight Grip Strength Tracking System", *IEEE Journal of Biomedical and Health Informatics (JBHI)*, vol. 17, no. 6, pp. 1023–1030, November, 2013. [2016 Impact Factor: 3.451]
- **[J15]** Hassan Ghasemzadeh, Roozbeh Jafari, "Ultra Low Power Signal Processing in Wearable Monitoring Systems: A Tiered Screening Architecture with Optimal Bit Resolution", *ACM Transactions in Embedded Computing Systems (TECS)*, vol. 13, no. 1, Article 9 (September 2013), 23 pages. [2016 Impact Factor: 1.367]
- **[J14]** Hassan Ghasemzadeh, Sarah Ostadabbas, Eric Guenterberg, Alexandros Pantelopoulos, "Wireless Medical Embedded Systems: A Review of Signal Processing Techniques for Classification", *IEEE Sensors Journal (SJ)*, vol. 13, no. 2, pp. 423–437, February 2013. (**Among 25 Most Downloaded Articles**) [2016 Impact Factor: 2.512]

- **[J13]** Eric Guenterberg, Hassan Ghasemezadeh, Roozbeh Jafari, "Automatic Segmentation and Recognition in Body Sensor Networks Using a Hidden Markov Model", *ACM Transactions in Embedded Computing Systems (TECS)*, 11, S2, Article 46, 19 pages, August 2012. [2016 Impact Factor: 1.367]
- **[J12]** Vitali Loseu, Hassan Ghasemzadeh, Roozbeh Jafari, "A Mining Technique Using N-grams and Motion Transcripts for Body Sensor Network Data Repository", *Proceedings of the IEEE Special Issue on Cyber Physical Systems (Proc. IEEE)*, vol. 100, no. 1, pp. 107-121, August 2011. [2016 Impact Factor: 9.237]
- **[J11]** Hassan Ghasemzadeh, Roozbeh Jafari, "Physical Movement Monitoring using Body Sensor Networks: A Phonological Approach to Construct Spatial Decision Trees", *IEEE Transactions on Industrial Informatics (TII)*, vol 7, no. 1, pp. 66-77, February 2011. [2016 Impact Factor: 6.764]
- **[J10]** Hassan Ghasemzadeh, Roozbeh Jafari, "Coordination Analysis of Human Movements with Body Sensor Networks: A Signal Processing Model to Evaluate Baseball Swings", *IEEE Sensors Journal Special Issue on Cognitive Sensor Networks (SJ)*, vol 11, no. 3, pp. 603-610, June 2010. [2016 Impact Factor: 2.512]
- **[J9]** Hassan Ghasemzadeh, Vitali Loseu, Roozbeh Jafari, "Burst Communication by Means of Buffer Allocation in Body Sensor Networks: Exploiting Signal Processing to Reduce the Number of Transmissions", *IEEE Journal on Selected Areas in Communications Special Issue on Simple Wireless Sensor Networking Solutions (JSAC)*, vol 28, no. 7, pp. 1073 - 1082, September 2010. [2016 Impact Factor: 8.085]
- **[J8]** Hassan Ghasemzadeh, Vitali Loseu, Roozbeh Jafari, "Structural Action Recognition in Body Sensor Networks: Distributed Classification Based on String Matching", *IEEE Transactions on Information Technology in BioMedicine Special Issue on Personal Health Systems (TITB)*, vol 14, no. 2, pp 425-435, March 2010. [2016 Impact Factor: 3.451]
- **[J7]** Hassan Ghasemzadeh, Roozbeh Jafari, Balakrishnan Prabhakaran, "A Body Sensor Network with Electromyogram and Inertial Sensors: Multi-Modal Interpretation of Muscular Activities", *IEEE Transactions on Information Technology in BioMedicine Special Issue on Affective and Pervasive Computing for Healthcare (TITB)*, vol 14, no. 2, pp 198-206, March 2010. [2016 Impact Factor: 3.451]
- **[J6]** Eric Guenterberg, Allen Y. Yang, Hassan Ghasemzadeh, Roozbeh Jafari, Ruzena Bajcsy, S. Shankar Sastry, "A Method for Extracting Temporal Parameters Based on Hidden Markov Models in Body Sensor Networks with Inertial Sensors", *IEEE Transactions on Information Technology in BioMedicine Special Issue on Wireless Health (TITB)*, vol 13, no. 6, pp 1019-1030, November 2009. [2016 Impact Factor: 3.451]
- **[J5]** Daniel Camara, Daniel T. Fokum, Eric Anderson, Hassan Ghasemzadeh, Yong Liu, "Report from HotMobile 2009", *IEEE Pervasive Computing*, vol. 8, no. 3, pp. 94-96, July-September, 2009. (Conference Column)
- **[J4]** Roozbeh Jafari, Hassan Ghasemzadeh, Foad Dabiri, Ani Nahapetian, Majid Sarrafzadeh, "An Efficient Placement and Routing Technique for Fault-tolerant Distributed Embedded Computing", *ACM Transactions on Embedded Computing Systems (TECS)*, vol. 8, no. 4, Article 28, 26 pages, July 2009. [2016 Impact Factor: 1.367]
- **[J3]** Hassan Ghasemzadeh, Vitali Loseu, Roozbeh Jafari, "Wearable Coach for Sport Training: A Quantitative Model to Evaluate Wrist-Rotation in Golf", *Journal of Ambient Intelligence and Smart Environments Special Issue on Wearable Sensors (JAISE)*, vol 1, no. 2, pp 173-184, April 2009. [2016 Impact Factor: 0.809]

- **[J2]** Hassan Ghasemzadeh, Eric Guenterberg, Roozbeh Jafari, "Energy-Efficient Information-Driven Coverage for Physical Movement Monitoring in Body Sensor Networks", *IEEE Journal on Selected Areas in Communications Special Issue on Body Area Networks (JSAC)*, vol 27, pp 58-69, January 2009. [2016 Impact Factor: 8.085]
- **[J1]** Hassan Ghasemzadeh, Sepideh Mazouee, Hassan Goldani Moghaddam, Hamid Shojaei, Mohammad Reza Kokoee, "Hardware Implementation of Stack-Based Replacement Algorithms", *International Journal of Applied Mathematics and Computer Sciences*, vol 2, no. 3, pp 143-147, Summer 2006. [2016 Impact Factor: 1.420]

Conference Papers

- **[C88]** Asiful Arefeen, Saman Khamesian, Maria Adela Grando, Bithika Thompson, Hassan Ghasemzadeh, "GlyMan: Glycemic Management using Patient-Centric Counterfactuals", *IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI)*, November 10–13, 2024, Houston, TX.
- **[C87]** Nooshin Taheri Chatrudi, Will Clegern, Robert Hager, Lonnie Nelson, Hassan Ghasemzadeh, "Wavelet-Augmented Self-Supervised Learning for Accurate Classification of Cognitive Workload", *IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, October 15–17, 2024, Chicago, IL.
- **[C86]** Ramesh Kumar Sah, Stephanie Marita Carpenter, Hassan Ghasemzadeh, "Minimum-Cost Channel Selection in Wearables", *IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, October 15–17, 2024, Chicago, IL.
- **[C85]** Prisha Shroff, Asiful Arefeen, Hassan Ghasemzadeh, "GlucoseAssist: Personalized Blood Glucose Level Predictions and Early Dysglycemia Detection", *IEEE International Conference on Body Sensor Networks (BSN)*, October 9–11, 2023, Boston, MA, USA.
- **[C84]** Abdullah Mamun, Chia-Cheng Kuo, David W. Britt, Lawrence D. Devoe, Mark I. Evans, Hassan Ghasemzadeh, Judith Klein-Seetharaman, "Neonatal Risk Modeling and Prediction", *IEEE International Conference on Body Sensor Networks (BSN)*, October 9–11, 2023, Boston, MA, USA.
- **[C83]** Reza Rahimi Azghan, Nicholas Goldosky, Ramesh Kumar Sah, Carrie Cuttler, Ryan Mclaughlin, Michael Cleveland, Hassan Ghasemzadeh, "Personalized Modeling and Detection of Moments of Cannabis Use in Free-Living Environments", *IEEE International Conference on Body Sensor Networks (BSN)*, October 9–1, 2023, Boston, MA, USA.
- **[C82]** Parker Seegmiller, Joseph Gatto, Madhusudan Basak, Diane Cook, Hassan Ghasemzadeh, John Stankovic, Sarah Preum. "The Scope of In-Context Learning for the Extraction of Medical Temporal Constraints", *IEEE 11th International Conference on Healthcare Informatics (ICHI)*, June 26–29, 2023, Houston, TX, USA
- **[C81]** Asiful Arefeen, Hassan Ghasemzadeh, "GlySim: Modeling and Simulating Glycemic Response for Behavioral Lifestyle Interventions", *IEEE International Conference on Biomedical and Health Informatics (BHI)*, October 15–18, 2023, Pittsburgh, PA, USA.
- **[C80]** Asiful Arefeen, Niloo Jaribi, Bobak J. Mortazavi, Hassan Ghasemzadeh, "Computational Framework for Sequential Diet Recommendation: Integrating Linear Optimization and

Clinical Domain Knowledge", *IEEE/ACM International Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, November 17–19, 2022, Washington, DC.

- **[C79]** Abdullah Mamun, Krista S. Leonard, Matthew P. Buman, Hassan Ghasemzadeh, "Multimodal Time-Series Activity Forecasting for Adaptive Lifestyle Intervention Design", *IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, September 27–30 2022, Ioannina, Greece. (**Best Paper Honorable Mention Award**)
- **[C78]** Sai Vaibhav Polisetti Venkata, Shubhankar Sabat, Chinmay Anand Deshpande, Asiful Arefeen, Daniel Peterson, Hassan Ghasemzadeh, "On-Device Machine Learning for Diagnosis of Parkinson's Disease from Hand Drawn Artifacts", *IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, September 27–30 2022, Ioannina, Greece.
- **[C77]** Asiful Arefeen, Samantha Fessler, Carol Johnston, Hassan Ghasemzadeh, "Forewarning Postprandial Hyperglycemia with Interpretations using Machine Learning", *IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, September 27–30 2022, Ioannina, Greece.
- **[C76]** Ramesh Kumar Sah, Michael McDonell, Patricia Pendry, Sara Parent, Hassan Ghasemzadeh, Michael J Cleveland, "ADARP: A Multi Modal Dataset for Stress and Alcohol Relapse Quantification in Real Life Setting", *IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, September 27–30 2022, Ioannina, Greece.
- **[C75]** Ramesh K. Sah, Seyed Iman Mirzadeh, Hassan Ghasemzadeh, "Continual Learning for Activity Recognition", *The 44th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, July 11–15, 2022, Glasgow, Scotland, United Kingdom.
- **[C74]** Abdullah Mamun, Seyed Iman Mirzadeh, Hassan Ghasemzadeh, "Designing Deep Neural Networks Robust to Sensor Failure in Mobile Health Environments", *The 44th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, July 11–15, 2022, Glasgow, Scotland, United Kingdom.
- **[C73]** Parastoo Alinia, Saman Parvaneh, Seyed Iman Mirzadeh, Asiful Arefeen, Hassan Ghasemzadeh, "Boosting Lying Posture Classification with Transfer Learning", *The 44th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, July 11–15, 2022, Glasgow, Scotland, United Kingdom.
- **[C72]** Ramesh K. Sah, Michael J. Cleveland, Assal Habibi, Hassan Ghasemzadeh, "Stressalyzer: Convolutional Neural Network Framework for Personalized Stress Classification", *The 44th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, July 11–15, 2022, Glasgow, Scotland, United Kingdom.
- **[C71]** Ryan C. Holder, Ramesh S. Kumar, Michael Cleveland, Hassan Ghasemzadeh, "Comparing the Predictability of Sensor Modalities to Detect Stress from Wearable Sensor Data", *IEEE Consumer Communications and Networking Conference (CCNC)*, January 8–11, 2022, Virtual.
- **[C70]** Bingnan Zhou, Farnaz Mohammadi, Jung S. Lim, Negin Forouzesh, Hassan Ghasemzadeh, Navid Amini, "Analysis of Macular Thickness Deviation Maps for Diagnosis of Glaucoma", *6th International Symposium on Visual Computing (ISVC)*, October 4–6, 2021, Virtual.
- **[C69]** Seyed Iman Mirzadeh, Mehrdad Farajtabar, Dilan Gorur, Razvan Pascanu, Hassan Ghasemzadeh, "Linear Mode Connectivity in Multitask and Continual Learning", *International Conference on Learning Representations (ICLR)*, May 4–8, 2021.

- **[C68]** Seyed Iman Mirzadeh, Mehrdad Farajtabar, Razvan Pascanu, Hassan Ghasemzadeh, "Understanding the Role of Training Regimes in Continual Learning", *Thirty-fourth Conference on Neural Information Processing Systems (NeurIPS)*, December 6–12, 2020, Vancouver, Canada. [acceptance rate 20.1%]
- **[C67]** Navid Amini, Veronica Toriz, Jung S. Lim, Farnaz Mohammadi, Clinton Thodos, Benjamin Braun, Hassan Ghasemzadeh, Kouros Nouri-Mahdavi, "Design and Evaluation of a Wearable Assistive Technology for Hemianopic Stroke Patients", *International Symposium on Wearable Computers (ISWC)*, September 12–16, 2020. (**Recipient of the Best Wearables Note Award**)
- **[C66]** Seyed Iman Mirzadeh, Hassan Ghasemzadeh, "Optimal Policy for Deployment of Machine Learning Models on Energy-Bounded Systems", *The 29th International Joint Conference on Artificial Intelligence (IJCAI)*, July 11–17th, 2020, Yokohama, Japan. [acceptance rate 12.6%]
- **[C65]** Seyed Iman Mirzadeh, Mehrdad Farajtabar, Ang Li, Nir Levine, Akihiro Matsukawa, Hassan Ghasemzadeh, "Improved Knowledge Distillation via Teacher Assistant", *Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI)*, February 7–12, 2020, New York, NY. [acceptance rate 20.6%]
- **[C64]** Ramesh Kumar Sah, Hassan Ghasemzadeh, "Adar: Adversarial Activity Recognition in Wearables", *IEEE/ACM International Conference On Computer Aided Design (ICCAD)*, November 4–7, 2019, Westminster, CO.
- **[C63]** Seyed Iman Mirzadeh, Jessica C. Ardo, Ramin Fallahzadeh, Bryan Minor, Lorraine Evangelista, Diane Cook, Hassan Ghasemzadeh. "LabelMerger: Learning Activities in Uncontrolled Environments", *International Conference on Transdisciplinary AI (TransAI)*, September 25–27, 2019, Laguna Hills, CA.
- **[C62]** Zhila Esna Ashari, Hassan Ghasemzadeh, "Mindful Active Learning", *The 28th International Joint Conference on Artificial Intelligence (IJCAI)*, August 10–16, 2019, Macao, China. [acceptance rate 17.9%]
- **[C61]** Maria Malik, Hassan Ghasemzadeh, Tinoosh Mohsenin, Rosario Cammarota, Liang Zhao, Avesta Sasan, Houman Homayoun, Setareh Rafatirad, "ECoST: Energy-Efficient Co-Locating and Self-Tuning MapReduce Applications", *The 48th International Conference on Parallel Processing (ICPP)*, August 5–8, 2019, Kyoto, Japan.
- **[C60]** Mahdi Pedram, Seyed Ali Rokni, Marjan Nourollahi, Hassan Ghasemzadeh, "Resource-Efficient Wearable Computing for Real-Time Reconfigurable Machine Learning: A Cascading Binary Classification",*IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, May 19–22, 2019, Chicago, IL, USA.
- **[C59]** Yuchao Ma, Hassan Ghasemzadeh, "LabelForest: Non-Parametric Semi-Supervised Learning for Activity Recognition", *The Thirty-Third AAAI Conference on Artificial Intelligence (AAAI-19)*, January 27–February 1, 2019, Honolulu, HI, USA. [acceptance rate 16.2%]
- **[C58]** Shervin Hajiamini, Behrooz Shirazi, Aaron Crandall, Hassan Ghasemzadeh, "A Dynamic Programming Technique for Energy-Efficient Multicore Systems", *The Ninth International Green and Sustainable Computing Conference (IGSC)*, October 22–24, 2019, Pittsburgh, PA, USA.
- **[C57]** Katayoun Neshatpour, Hosein Mohammadi Makrani, Avesta Sasan, Hassan Ghasemzadeh, Setareh Rafatirad, Houman Homayoun, "Architectural considerations for FPGA acceleration

of machine learning applications in MapReduce", *International Conference on Embedded Computer Systems: Architectures, Modeling, and Simulation (SAMOS)*, July 15–19, 2018, Pythagorion, Greece.

- **[C56]** Niloofar Hezarjaribi, Rabijit Dutta, Tao Xing, Gordon K. Murdoch, Sepideh Mazrouee, Bobak J. Mortazavi, Hassan Ghasemzadeh, "Monitoring Lung Mechanics during Mechanical Ventilation using Machine Learning Algorithms", *IEEE 40th International Engineering in Medicine and Biology Conference (EMBC)*, July 17–21, 2018, Honululu, HI, USA.
- **[C55]** Yuchao Ma, Samaneh Aminikhanghahi, Shane Wilhelm, Wesley Thorsen, Evan Coleman, Hassan Ghasemzadeh, "Toward Continuous Visual Field Assessment Using Head-Mounted Sensing Devices", *IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, March 4–7, 2018, Las Vegas, NV.
- **[C54]** Ramin Fallahzadeh, Parastoo Alinia, Hassan Ghasemzadeh, "Learn-on-the-Go: Autonomous Cross-Subject Context Learning for Internet-of-Things Applications", *The 36th IEEE/ACM International Conference On Computer Aided Design (ICCAD)*, November 13–16, 2017, Irvine, CA.
- **[C53]** Seyed Ali Rokni, Hassan Ghasemzadeh, "Synchronous Dynamic View Learning: A Framework for Autonomous Training of Activity Recognition Models using Wearable Sensors", *The 16th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN)*, April 18–21, 2017, Pittsburgh, PA, USA. [acceptance rate: 18%]
- **[C52]** Ramin Fallahzadeh, Hassan Ghasemzadeh, "Personalization without User Interruption: Boosting Activity Recognition in New Subjects Using Unlabeled Data (An Uninformed Cross-Subject Transfer Learning Algorithm)", *ACM/IEEE International Conference on Cyber Physical Systems (ICCPS)*, April 18–21, 2017, Pittsburgh, PA, USA.
- **[C51]** Ramin Fallahzadeh, Josue Pagan Ortiz, Hassan Ghasemzadeh, "Adaptive Compressed Sensing at the Fingertip of Internet-of-Things Sensors: An Ultra-Low Power Activity Recognition", *IEEE/ACM Design, Automation and Test in Europe (DATE)*, March 27–31, 2017, Lausanne, Switzerland. (**Nominated for Best Paper Award**)
- **[C50]** Yuchao Ma, Hassan Ghasemzadeh, "Head-Mounted Sensors and Wearable Computing for Automatic Tunnel Vision Assessment", *IEEE/ACM Design, Automation and Test in Europe (DATE)*, March 27–31, 2017, Lausanne, Switzerland.
- **[C49]** Josue Pagan Ortiz, Ramin Fallahzadeh, Hassan Ghasemzadeh, Jose Manuel Moya, José Luis Risco Martín, Jose L. Ayala, "An Optimal Approach for Low-Power Migraine Prediction Models in the State-of-the-Art Wireless Monitoring Devices", *IEEE/ACM Design, Automation and Test in Europe (DATE)*, March 27–31, 2017, Lausanne, Switzerland.
- **[C48]** Mohammad Pourhomayoun, Foad Dabiri, Costas Sideris, Kartik Yadav, Li (Linda) Tseng, Nabil Alshurafa, Hassan Ghasemzadeh, Adeline Nyamathi, Majid Sarrafzadeh, "A Robust Distributed Remote Health Monitoring System for Rural Area with Limited Internet Access", *The 11th EAI International Conference on Body Area Networks (BodyNets)*, December 15-–16, 2016, Turin, Italy.
- **[C47]** Ramyar Saeedi, Hassan Ghasemzadeh, Assefaw Gebremedhin, "Transfer Learning Algorithms for Autonomous Reconfiguration of Wearable Systems", *IEEE International Conference on Big Data (BigData)*, December 5–8, 2016, Washington DC.
- **[C46]** Ramin Fallahzadeh, Hassan Ghasemzadeh, "CyHOP: A Generic Framework for Real-Time Power-Performance Optimization in Networked Wearable Motion Sensors", *The 34th IEEE International Conference on Computer Design (ICCD)*, October 3–5, 2016, Phoenix, AZ.

- **[C45]** Seyed Ali Rokni, Hassan Ghasemzadeh, "Autonomous Sensor-Context Learning in Dynamic Human-Centered Internet-of-Things Environments", *The 35th IEEE/ACM International Conference On Computer Aided Design (ICCAD)*, November 7–10, 2016, Austin, TX.
- **[C44]** Ramin Fallahzadeh, Mahdi Pedram, Hassan Ghasemzadeh, "SmartSock: A Wearable Platform for Context-Aware Assessment of Ankle Edema", *The 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, August 16–20, 2016, Orlando, FL.
- **[C43]** Niloofar Hezarjaribi, Cody Reynolds, Drew Miller, Naomi Chaytor, Hassan Ghasemzadeh, "S2NI: A Mobile Platform for Nutrition Monitoring from Spoken Data", *The 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, August 16–20, 2016, Orlando, FL.
- **[C42]** Yuchao Ma, Hassan Ghasemzadeh, "An Asynchronous Multi-View Learning Approach for Activity Recognition Using Wearables", *The 38th IEEE Engineering in Medicine and Biology Society Conference (EMBC)*, Aug. 16–20, 2016, Orlando, FL.
- **[C41]** Ramyar Saeedi, Ramin Fallahzadeh, Parastoo Alinia, Hassan Ghasemzadeh, "An Energy-Efficient Computational Model for Uncertainty Management in Dynamically Changing Networked Wearables", *ACM/IEEE International Symposium on Low Power Electronics and Design (ISLPED)*, August 8–10, 2016, San Francisco, CA.
- **[C40]** Ali Rokni, Hassan Ghasemzadeh, "Plug-n-Learn: Automatic Learning of Computational Algorithms in Human-Centered Internet-of-Things Applications", *The 53rd ACM/EDAC/IEEE Design Automation Conference (DAC)*, June 5–9, 2016, Austin, TX.
- **[C39]** Niloofar Hezarjaribi, Ramin Fallahzadeh, Hassan Ghasemzadeh, "A Machine Learning Approach for Medication Adherence Monitoring Using Body-Worn Sensors", *IEEE/ACM Design, Automation and Test in Europe (DATE)*, March 14–18, 2016, Dresden, Germany.
- **[C38]** Parastoo Alinia, Ramyar Saeedi, Ali Rokni, Bobak Mortazavi, Hassan Ghasemzadeh, "Impact of Sensor Misplacement on Estimating Metabolic Equivalent of Task with Wearables", *The 12th Annual IEEE Body Sensor Networks Conference (BSN)*, June 9–12, 2015, MIT, Cambridge, USA.
- **[C37]** Yuchao Ma, Ramin Fallahzadeh, Hassan Ghasemzadeh, "Toward Robust and Platform-Agnostic Gait Analysis", *The 12th Annual IEEE Body Sensor Networks Conference (BSN)*, June 9–12, 2015, MIT, Cambridge, USA.
- **[C36]** Ramyar Saeedi, Hassan Ghasemzadeh, "Patient-Centric On-Body Sensor Localization in Smart Health Systems", *The 48th Asilomar Conference on Signals, Systems and Computers*, November 2–5, 2014, Pacific Grove, CA, USA.
- **[C35]** Mohammad Pourhomayoun, Nabil Alshurafa, Bobak Jack Mortazavi, Hassan Ghasemzadeh, Majid Sarrafzadeh, "Multiple Model Analytics for Adverse Event Prediction in Remote Health Monitoring Systems", *the 2014 Healthcare Innovations and Point-of-Care Technologies Conference (HICPT)*, October 8–10, 2014, Seattle, WA, USA.
- **[C34]** Ramyar Saeedi, Brian Schimert, Hassan Ghasemzadeh, "Cost-Sensitive Feature Selection for On-Body Sensor Localization", *The 2nd International Workshop on Human Activity Sensing Corpus and Its Application (HASCA 2014) co-located with ACM UbiComp*, September 13, 2014, Seattle, WA, USA.

- **[C33]** Hassan Ghasemzadeh, Diane Cook, Misha Pavel, Parisa Rashidi, Roozbeh Jafari, Marjorie Skubic, Michael Ong, George Demiris, "SmartHealthSys 2014: ACM UbiComp International Workshop on Smart Health Systems and Applications" (Workshop Proposal), *The 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp)*, September 13–17, 2014, Seattle, Washington, USA.
- **[C32]** Ramyar Saeedi, Janet Purath, Krishna Venkatasubramanian, Hassan Ghasemzadeh, "Toward Seamless Wearable Sensing: Automatic On-Body Sensor Localization for Physical Activity Monitoring", *The 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, August 26–30, 2014, Chicago, Illinois, USA.
- **[C31]** Hassan Ghasemzadeh, Behrooz Shirazi, "Context-Aware Signal Processing in Medical Embedded Systems: A Dynamic Feature Selection Approach", *IEEE Global Conference on Signal and Information Processing (GlobalSIP)*, December 3–5, 2013, Austin, Texas, USA.
- **[C30]** Sunghoon Ivan Lee, Hassan Ghasemzadeh, Bobak Jack Mortazavi, Mars Lan, Michael Ong, Majid Sarrafzadeh, "Remote Health Monitoring Systems: What Impact Can Data Analytics Have on Cost?", *ACM Conference on Wireless Health (WH)*, November 1-3, 2013, Johns Hopkins University, Baltimore, MD.
- **[C29]** Sunghoon Ivan Lee, Hassan Ghasemzadeh, Bobak Jack Mortazavi, Andrew Yew, Ruth Getachew, Mehrdad Razaghy, Nima Ghalehsari, Brian H. Paak, Jordan H. Garst, Marie Espinal, Jon Kimball, Daniel C. Lu, Majid Sarrafzadeh, "Objective assessment of overexcited hand movements using a lightweight sensory device", *IEEE International Conference on Body Sensor Networks (BSN)*, May 6–9, 2013 Cambridge, MA, USA.
- **[C28]** Mars Lan, Lauren Samy, Nabil Alshurafa, Myung-kyung Suh, Hassan Ghasemzadeh, Aurelia Macabasco-O'Connell, Majid Sarrafzadeh, "WANDA: An End-to-End Remote Health Monitoring and Analytics System for Heart Failure Patients", *ACM Conference on Wireless Health (WH)*, October 23-25, 2012, San Diego, CA.
- **[C27]** Myung-kyung Suh, Jonathan Woodbridge, Tannaz Moin, Mars Lan, Nabil Alshurafa, Lauren Samy, Hassan Ghasemzadeh, Alex Bui, Sheila Ahmadi, Majid Sarrafzadeh, "Dynamic Task Optimization in Remote Diabetes Monitoring Systems", *The 2nd IEEE Conference on Healthcare Informatics, Imaging, and Systems Biology (HISB)*, September 27-28, 2012, La Jolla, CA.
- **[C26]** Mars Lan, Hassan Ghasemzadeh, Majid Sarrafzadeh, "Generalized Precursor Pattern Discovery for Biomedical Signals", *34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, San Diego, August 28 - September 1, 2012.
- **[C25]** Myung-Kyung Suh, Tannaz Moin, Jonathan Woodbridge, Hassan Ghasemzadeh, Sheila Ahmadi, Alex Bui, Majid Sarrafzadeh, "Dynamic Self-adaptive Remote Health Monitoring System for Diabetics", *34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, San Diego, August 28 - September 1, 2012.
- **[C24]** Hassan Ghasemzadeh, "Power Optimization in Wearable Biomedical Systems: A Signal Processing Perspective", *SPIE NanoScience + Engineering Symposium*, August 12-16, 2012, San Diego, CA.
- **[C23]** Hassan Ghasemzadeh, Navid Amini, Majid Sarrafzadeh, "Energy-Efficient Signal Processing in Wearable Embedded Systems: An Optimal Feature Selection Approach", *International Symposium on Low Power Electronics and Design (ISLPED)*, July 30-August 1, 2012, Redondo Beach, CA.

- **[C22]** Francesco Fraternali, Mahsan Rofouei, Nabil Alshurafa, Hassan Ghasemzadeh, Luca Benini, Majid Sarrafzadeh, "Opportunistic Hierarchical Classification for Power Optimization in Wearable Movement Monitoring Systems", *The 7th IEEE International Symposium on Industrial Embedded Systems (SIES)*, June 20-22, 2012, Karlsruhe, Germany.
- **[C21]** Vitali Loseu, Hassan Ghasemzadeh, Roozbeh Jafari, "A Wireless Communication Selection Approach to Minimize Energy-per-bit for Wearable Computing Applications", *IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS)*, June 27-29, 2011, Barcelona, Spain.
- **[C20]** Steven L. Garverick, Hassan Ghasemzadeh, Mark Zurcher, Masoud Roham, and Enrique Saldivar, "Wireless Fetal Monitoring Device with Provisions for Multiple Births", *The 8th International Conference on Body Sensor Networks (BSN)*, May 23-25, 2011, Dallas, TX.
- **[C19]** Hassan Ghasemzadeh, Roozbeh Jafari, " An Ultra Low Power Granular Decision Making using Cross Correlation: Minimizing Signal Segments for Template Matching", *The ACM/IEEE Second International Conference on Cyber-Physical Systems (ICCPS)*, April 11-14, 2011, Chicago, IL. [acceptance rate: 28%]
- **[C18]** Hassan Ghasemzadeh, Roozbeh Jafari, " Ultra Low Power Granular Decision Making using Cross Correlation: Optimizing Bit Resolution for Template Matching", *The 17th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS)*, April 11-14, 2011, Chicago, IL. (**Recipient of the Best Paper Award**) [1 out of 139]
- **[C17]** Hassan Ghasemzadeh, Roozbeh Jafari, "A Greedy Buffer Allocation Algorithm for Power-aware Communication in Body Sensor Networks", *The International Conference on Hardware-Software Codesign and System Synthesis (CODES+ISSS)*, October 24-29, 2010, Scottsdale, AZ. [acceptance rate: 34%]
- **[C16]** Vitali Loseu, Hassan Ghasemzadeh, Latifur R. Khan, and Roozbeh Jafari, "A Mining Technique Using N-grams and Motion Transcripts for Body Sensor Network Data Repository", *ACM Wireless Health Conference*, October 4-7, 2010, San Diego, CA. [acceptance rate: 17%]
- **[C15]** Hassan Ghasemzadeh, Roozbeh Jafari, "Data Aggregation in Body Sensor Networks: A Power Optimization Technique for Collaborative Signal Processing", *The 7th IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON)*, June 21-25, 2010, Boston, MA. [acceptance rate: 21%]
- **[C14]** Hassan Ghasemzadeh, Vitali Loseu, Roozbeh Jafari, "Collaborative Signal Processing for Action Recognition in Body Sensor Networks: A Distributed Classification Algorithm Using Motion Transcripts", *The 9th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN)*, April 12-16, 2010, Stockholm, Sweden. [acceptance rate: 17%]
- **[C13]** Hassan Ghasemzadeh, Eric Guenterberg, Sarah Ostadabbas, Roozbeh Jafari, "A Motion Sequence Fusion Technique Based on PCA for Activity Analysis in Body Sensor Networks", *31st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, September 2009, Minneapolis, MN.
- **[C12]** Eric Guenterberg, Hassan Ghasemzadeh, Vitali Loseu, Roozbeh Jafari, "Distributed Continuous Action Recognition using a Hidden Markov Model on Body Sensor Networks", *IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS)*, June 2009, Marina Del Rey, CA. [acceptance rate: 22%]
- **[C11]** Eric Guenterberg, Hassan Ghasemzadeh, and Roozbeh Jafari, "A Distributed Hidden Markov Model for Fine-grained Annotation in Body Sensor Networks", *International Conference on Body Sensor Networks (BSN)*, June 2009, Berkeley, CA.

- **[C10]** Hassan Ghasemzadeh, Nisha Jain, Marco Sgroi, Roozbeh Jafari, "Communication Minimization for In-Network Processing in Body Sensor Networks: A Buffer Assignment Technique", *IEEE/ACM Design, Automation and Test in Europe (DATE)*, April 20-24 2009, Nice, France. [acceptance rate: 27%]
- **[C9]** Hassan Ghasemzadeh, Vitali Loseu, Roozbeh Jafari, "Sport Training Using Body Sensor Networks: A Statistical Approach to Measure Wrist Rotation for Golf Swing", *The Fourth International Conference on Body Area Networks (BodyNets)*, April 1st-3rd 2009, Los Angeles, CA.
- **[C8]** Eric Guenterberg, Sarah Ostadabbas, Hassan Ghasemzadeh, Roozbeh Jafari, "An Automatic Segmentation Technique in Body Sensor Networks Based on Signal Energy", *The Fourth International Conference on Body Area Networks (BodyNets)*, April 1st-3rd 2009, Los Angeles, CA.
- **[C7]** Hassan Ghasemzadeh, Jaime Barnes, Eric Guenterberg, Roozbeh Jafari, "A Phonological Expression for Physical Movement Monitoring in Body Sensor Networks", *The Fifth IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)*, September and October 2008, Atlanta, GA. [acceptance rate: 10%]
- **[C6]** Amardeep Sathyanarayana, Sandhya Nageswaren, Hassan Ghasemzadeh, Roozbeh Jafari, John H.L. Hansen, "Body Sensor Networks for Driver Distraction Identification", *IEEE International Conference on Vehicular Electronics and Safety (ICVES)*, September 2008, Columbus, OH.
- **[C5]** Hassan Ghasemzadeh, Eric Guenterberg, Katherine Gilani, Roozbeh Jafari, "Action Coverage Formulation for Power Optimization in Body Sensor Networks", *ACM/IEEE Asia and South Pacific Design Automation Conference (ASP-DAC)*, January 2008, Seoul, Korea.
- **[C4]** Mohammad Reza Kokoee, Hamid Shojaei, Hassan Ghasemzadeh, Marjan Sirjani, Zeinalabedin Navabi, "A New Approach for Design and Verification of Transaction Level Models", *IEEE International Symposium on Circuits and Systems (ISCAS'07)*, pp. 3760-3763, New Orleans, USA, May 2007.
- **[C3]** Hassan Ghasemzadeh, Sepideh Mazouee, Hassan Goldani Moghaddam, Hamid Shojaei, Mohammad Reza Kokoee, "Hardware Implementation of Stack-Based Replacement Algorithms", *In Proceedings of World Academy of Science, Engineering and Technology (WASET)*, pp. 135-139, Venice, Italy, November 2006.
- **[C2]** Hassan Ghasemzadeh, Sepideh Mazouee, Mohammad Reza Kokoee, "Modified Pseudo LRU Replacement Algorithm", *IEEE International Conference and Workshop on the Engineering of Computer Based Systems (ECBS)*, pp. 368-376, Potsdam, Germany, March 2006.
- **[C1]** Hassan Ghasemzadeh, S. Omid Fatemi, "Pseudo-FIFO Architecture of LRU Replacement Algorithm", *IEEE International Multi Topic Conference (INMIC)*, Karachi, Pakistan, December 2005.

Workshop Papers

- **[W17]** Seyed Iman Mirzadeh, Hassan Ghasemzadeh, 'CL-Gym: Full-Featured PyTorch Library for Continual Learning", *CVPR 2021 Workshop on Continual Learning in Computer Vision (CLVISION)*, June 25, 2021, Nashville, TN, USA (Virtual).

- **[W16]** Anbumalar Saravanan, Justin Sanchez, Hassan Ghasemzadeh, Aurelia Macabasco-O'Connell, Hamed Tabkhi, "Single Run Action Detector over Video Stream - A Privacy Preserving Approach", *IJCAI 2nd International Workshop on Deep Learning for Human Activity Recognition (DL-HAR)*, January 4–10, 2021.
- **[W15]** Yuchao Ma, Andrew Campbell, Diane Cook, John Lach, Shwetak Patel, Thomas Ploetz, Majid Sarrafzadeh, Donna Spruijt-Metz, and Hassan Ghasemzadeh, "Transfer Learning for Activity Recognition in Mobile Health", *KDD 2020 Workshop on on Applied Data Science for Healthcare (DSHealth)*, August 24, 2020.
- **[W14]** Seyed Iman Mirzadeh, Mehrdad Farajtabar, Razvan Pascanu, Hassan Ghasemzadeh, "Understanding the Role of Training Regime in Continual Learning", *ICML 2020 Workshop on Continual Learning*, July 17, 2020.
- **[W13]** Marjan Nourollahi, Seyed Ali Rokni, Parastoo Alinia, Hassan Ghasemzadeh, "Proximity-Based Active Learning for Eating Moment Recognition in Wearable Systems", *The 6th ACM Workshop on Wearable Systems and Applications (WearSys 2020) in Conjunction with ACM MobiSys 2020*, June 19, 2020, Toronto, Canada.
- **[W12]** Seyed Iman Mirzadeh, Mehrdad Farajtabar, Hassan Ghasemzadeh, "Dropout as an Implicit Gating Mechanism For Continual Learning", *CVPR 2020 Workshop on Continual Learning in Computer Vision (CLVISION)*, June 14, 2020, Seattle, WA, USA. (**Recipient of the Runner-up Award**)
- **[W11]** Mahdi Pedram, Mahsan Rofouei, Francesco Fraternali, Zhila Esna Ashari, Hassan Ghasemzadeh, "Resource-Efficient Computing in Wearable Systems", *IEEE Workshop on Smart Service Systems (SmartSys) in Conjunction with IEEE SmartComp 2019*, June, 12, 2019, Washington D.C., USA.
- **[W10]** Yuchao Ma, Sharon Henry, Alex Kierlanczyk, Majid Sarrafzadeh, Joseph Caprioli, Kouros Nouri-Mahdavi, Hassan Ghasemzadeh, Navid Amini, "Investigation of Gait Characteristics in Glaucoma Patients with a Shoe-Integrated Sensing System", *International Workshop on the Impact of Human Mobility in Pervasive Systems and Applications (PerMoby) in Conjunction with IEEE PerCom 2015*, March 23–27, 2015, St. Louis, Missouri, USA.
- **[W9]** Ramin Fallahzadeh, Mahdi Pedram, Ramyar Saeedi, Bahman Sadeghi, Michael Ong, Hassan Ghasemzadeh, "Smart-Cuff: A Wearable Bio-Sensing Platform with Activity-Sensitive Information Quality Assessment for Monitoring Ankle Edema", *The 7th International Workshop on Information Quality and Quality of Service for Pervasive Computing (IQ2S) in Conjunction with IEEE PerCom 2015*, March 23–27, 2015, St. Louis, Missouri, USA.
- **[W8]** Ryan A. Danas, Douglas T. Lally, Nathaniel W. Miller, John S. Synott, Craig A. Shue, Krishna K. Venkatasubramanian, Hassan Ghasemzadeh, "Designing User-specific Plug-n-Play into Body Area Networks, *The 4th ACM MobiHoc Workshop on Pervasive Wireless Healthcare (MobileHealth), In conjunction with MobiHoc 2014*, August 11, 2014, Philadelphia, PA.
- **[W7]** Roozbeh Jafari, Hassan Ghasemzadeh, (Tutorial) "Wearable Computers: a Holistic Design Approach", *IEEE/IFIP Network Operations and Management Symposium (NOMS)*, May 5–9 May, 2014, Krakow, Poland.
- **[W6]** Haik Kalantarian , Anurag Mishra, Hassan Ghasemzadeh, Jason Liu, Majid Sarrafzadeh, "Multimodal Energy Expenditure Calculation for Health and Wellness Applications", *The 5th International Workshop on Smart Environments and Ambient Intelligence (SENAmI) co-located with PerCom*, March 18-22, 2013, San Diego, CA, USA.
- **[W5]** Pasquale Panuccio, Hassan Ghasemzadeh, Giancarlo Fortino, Roozbeh Jafari, "Power-Aware Action Recognition with Optimal Sensor Selection: An AdaBoost Driven Distributed

Template Matching Approach", *First International Workshop on Mobile Systems, Applications, and Services for Healthcare (mHealthSys) held at ACM SenSys*, November 1st, 2011, Seattle, WA. [acceptance rate: 35%]

- **[W4]** Vitali Loseu, Hassan Ghasemzadeh, Sarah Ostadabbas, Nikhil Raveendranathan, Jacques Malan, Roozbeh Jafari, "Applications of Sensing Platforms in Body Sensor Networks", *Lightweight Signal Processing for Computationally Intensive BSN Applications Workshop affiliated with PETRA*, June, 2010, Samos, Greece.
- **[W3]** Hassan Ghasemzadeh, Roozbeh Jafari, "Body Sensor Networks for Baseball Swing Training: Coordination Analysis of Human Movements Using Motion Transcripts", *The 8th Annual IEEE International Conference on Pervasive Computing and Communications (PerCom) Workshops*, March 29-April 2, 2010, Mannheim, Germany.
- **[W2]** Rohith Ramachandran, Lakshmish Ramanna, Hassan Ghasemzadeh, Gaurav Pradhan, Roozbeh Jafari, Balakrishnan Prabhakaran, "Body Sensor Networks to Evaluate Standing Balance: Interpreting Muscular Activities Based on Inertial Sensors", *The 2nd International Workshop on Systems and Networking Support for Healthcare and Assisted Living Environments (HealthNet)*, June 2008, Breckenridge, CO.
- **[W1]** Eric Guenterberg, Hassan Ghasemzadeh, Roozbeh Jafari, Ruzena Bajcsy, "A Segmentation Technique Based on Standard Deviation in Body Sensor Networks", *IEEE Dallas Engineering in Medicine and Biology Workshop (Dallas-EMBS)*, November 2007, Dallas, TX.

Abstracts

- **[A29]** Shovito B. Soumma, Abdullah Mamun, Hassan Ghasemzadeh " Domain-Informed Label Fusion Surpasses LLMs in Free-Living Activity Classification: Student Abstract", *Thirty-Ninth AAAI Conference on Artificial Intelligence (AAAI)*, February 25–March 4, 2025, Philadelphia, PA.
- **[A28]** Pegah Khorasani, Saman Khamesian, Abdullah Al Mamun, Hassan Ghasemzadeh, "Poster: Glysigma: Personalized Glucose Forecasting Enhanced by Bayesian Optimization on CGM Data", *IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, October 15–17, 2024, Chicago, IL.
- **[A27]** Fatimah Amer, Abdullah Al Mamun, Hassan Ghasemzadeh, "Poster: HydraSense: Personalized Hydration Monitoring with Wearables and Machine Learning", *IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, October 15–17, 2024, Chicago, IL.
- **[A26]** Shovito Barua Soumma, Daniel Peterson, Hassan Ghasemzadeh, Shyamal H. Mehta, "AI-Powered Detection of Freezing of Gait Using Wearable Sensor Data in Patients with Parkinson's Disease", *International Congress of Parkinson's Disease and Movement Disorders (MDS Congress)*, September 27–October 1, 2024, Philadelphia, PA (Poster Abstract). Published in *Movement Disorders* journal online supplement, 39 (suppl 1), 2024.
- **[A25]** Samantha N. Fessler, Asiful Arefeen, Hassan Ghazemzadeh, Carol S. Johnston1, "Postprandial CGM responses are inversely associated with positive mood states in healthy college students", *The 22nd International Society of Behavioral Nutrition and Physical Activity (ISBNPA) Annual Meeting*, June 14–17, 2023, Uppsala, Sweden. (Poster Abstract)

- **[A24]** Krista S. Leonard, Abdullah Al Mamun, Hassan Ghasemzadeh, Matthew P. Buman, "An empirical approach to understand mHealth application engagement and its associations with daily changes in physical activity in a lifestyle intervention among US Veterans with Prediabetes", *The ISMPB Sixth International Conference on Ambulatory Monitoring of Physical Activity and Movement (ICAMPAM)*, June 21–24, 2022, Keystone, Colorado, USA.
- **[A23]** Ramesh Kumar Sah, Hassan Ghasemzadeh, Assal Habibi, Michael McDonell, Patricia Pendry, Michael J. Cleveland, "Poster: Mobile Health for Alcohol Recovery and Relapse Prevention", *The IEEE/ACM International Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, December 2020, Washington, DC, USA. (Poster Abstract)
- **[A22]** Mahdi Pedram, Seyed Ali Rokni, Ramin Fallahzadeh, Hassan Ghasemzadeh, "Embedded Sensor System to Monitor Beverage Intake Type and Volume", *IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN')* May 19-22, 2019, Chicago, IL, USA. (Poster Abstract)
- **[A21]** Jessica C Ardo, Jung-Ah Lee, Janet Hildebrand, Diana Guijarro, Hassan Ghasemzadeh, Lorraine S Evangelista, "A Co-Design Approach to Validate a Text Message Bank for Use With Older Adults at Risk of Cardiovascular Disease", *Circulation*, March 6, 2019. (Poster Abstract)
- **[A20]** Jessica C Ardo, Diana Guijarro, Hassan Ghasemzadeh, Lorraine S Evangelista, "Activity-Aware Medication Prompting and Bluetooth Pillbox Usability and Acceptability With Adults", *Circulation*, March 6, 2019. (Poster Abstract)
- **[A19]** Katayoun Neshatpour, Hosein Mohammadi Makrani, Avesta Sasan, Hassan Ghasemzadeh, Setareh Rafatirad, Houman Homayoun, "Design Space Exploration for Hardware Acceleration of Machine Learning Applications in MapReduce", *IEEE Annual International Symposium on Field-Programmable Custom Computing Machines (FCCM)*, April 29–May 1, 2018, Boulder, CO, USA.
- **[A18]** Seyed Ali Rokni, Marjan Nourollahi, Hassan Ghasemzadeh, "Personalized Human Activity Recognition Using Convolutional Neural Networks", *The 32nd AAAI Conference on Artificial Intelligence (AAAI)*, February 2—7, 2018, New Orleans , Louisiana, USA. (Student Poster Abstract)
- **[A17]** Armin Shahrokni, Seyed Ali Rokni, Hassan Ghasemzadeh, "Machine learning algorithm for predicting longer postoperative length of stay among older cancer patients", *Journal of Clinical Oncology 35, 2017 (suppl; abstr e21536)*, 2017.
- **[A16]** Ramin Fallahzadeh, Bryan Minor, Lorraine S. Evangelista, Diane J. Cook, Hassan Ghasemzadeh, "Mobile Sensing to Improve Medication Adherence", *The 16th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN)*, April 18-21, 2017, Pittsburgh, PA, USA. (Demo Abstract)
- **[A15]** Mahdi Pedram, Seyed Ali Rokni, Ramin Fallahzadeh, Hassan Ghasemzadeh, "A Beverage Intake Tracking System Based on Machine Learning Algorithms, and Ultrasonic and Color Sensors", *The 16th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN)*, April 18-21, 2017, Pittsburgh, PA, USA. (Poster Abstract)
- **[A14]** Mohammad Pourhomayoun, Foad Dabiri, Ehsan Ardestani, Ahsan Samiee, Hassan Ghasemzadeh, Majid Sarrafzadeh, "Why Do We Need a Remote Health Monitoring System? A Case Study for Congestive Heart Failure Patients", *The 11th EAI International Conference on Body Area Networks (BodyNets)*, December 15-–16, 2016, Turin, Italy.

- **[A13]** Ramyar Saeedi, Parastoo Alinia, Ramin Fallahzadeh, Hassan Ghasemzadeh, "An Energy-Efficient Computational Reliability Model for Dynamically Evolving Human-Centered Monitoring", *The 53rd ACM/EDAC/IEEE Design Automation Conference (DAC)*, June 5–9, 2016, Austin, TX. (Word-In-Progress Abstract)
- **[A12]** Ramin Fallahzadeh, Ramyar Saeedi, Hassan Ghasemzadeh, "Energy-Aware Multi-Variant Networked Wearable System Design: A Derivative-Free Optimization", *The 53rd ACM/EDAC/IEEE Design Automation Conference (DAC)*, June 5–9, 2016, Austin, TX. (Word-In-Progress Abstract)
- **[A11]** Yuchao Ma, Navid Amini, Hassan Ghasemzadeh, "Gait Pattern Identification in Glaucoma Patients with Wearable Sensors", *ACM Conference on Wireless Health (WH)*, October 14–16, 2015, National Institutes of Health, Bethesda, MD. (Abstract)
- **[A10]** Chanda Ho, Neil Shah, Nabil Alshurafa, Behnam Shahbazi, Hassan Ghasemzadeh, and Norah Terrault, "Beyond Dr. Google: Early results of a personalized weight-tracking smartphone application and alert system for patients with ascites", *Hepatology*, vol. 60, no. 259, October 2014.
- **[A9]** Ramyar Saeedi, Hassan Ghasemzadeh, "AutoLocate: A Machine Learning Approach for Automatic Localization of Wearable Sensors in Smart Health Applications", *Washington State University 2014 Academic Showcase*, March 27–28, 2014, Washington State University, Pullman, WA. (Abstract)
- **[A8]** Hassan Ghasemzadeh, Lorraine Evalgelista, Majid Sarrafzadeh, "Predicting Use of Remote Health Monitoring Systems in a Cohort of Patients with Chronic Heart Failure", *ACM Conference on Wireless Health (WH*, November 1–3, 2013, Johns Hopkins University, Baltimore, MD.
- **[A7]** Tannaz Moin, Jane Lee, Diane MK Suh, Nancy Lee, Rose Healy, Dorothy S Martinez, Hassan Ghasemzadeh, Majid Sarrafzadeh, Sheila Ahmadi, "Diabetes Telehealth Intervention For Transitions in Care: A Pilot Study", *The Endocrine Society's 95th Annual Meeting & Expo (ENDO)*, June 15–18, 2013, San Francisco, California, USA.
- **[A6]** Sunghoon Ivan Lee, Hassan Ghasemzadeh, Andrew Yew, Ruth Getachew, Jon Kimball, Nima Ghalehsari, Brian H. Paak, Jordan H. Garst, Mehrdad Razaghy, Daniel C. Lu MD, Majid Sarrafzadeh, "Objective Assessment of Spastic Hand Hypertonia using a Novel Digital Device", *The 20th IAGG World Congress of Gerontology and Geriatrics*, June, 2013, Seoul, Korea.
- **[A5]** Mars Lan, Hassan Ghasemzadeh, Majid Sarrafzadeh, "WANDA: An End-to-End Remote Monitoring System", *The 9th International Conference on Body Sensor Networks (BSN)*, May 9-12, 2012, London, UK. (Demo Abstract)
- **[A4]** Vitali Loseu, Hassan Ghasemzadeh, Roozbeh Jafari, "Towards a Power Optimized Communication Failure Recovery Scheme for Body Sensor Networks", *First International Conference on Cyber-Physical Systems (ICCPS)*, April 13-15, 2010, Stockholm, Sweden. (Poster Abstract)
- **[A3]** Hassan Ghasemzadeh, Roozbeh Jafari, "Body Sensor Networks: Signal Processing for Power Optimization", *The Tenth Workshop on Mobile Computing Systems and Applications (HotMobile)*, February 23-24 2009, Santa Cruz, CA. (**Recipient of Best Poster Award**)
- **[A2]** Hassan Ghasemzadeh, Roozbeh Jafari, "Sensing Health: Challenges in Designing Mobile Sensory Platforms for Healthcare Monitoring", *The Tenth Workshop on Mobile Computing Systems and Applications (HotMobile) Doctoral Consortium*, February 23-24 2009, Santa Cruz, CA.

- [A1] Jaime Barnes, Vikram Ramachandra, Katherine Gilani, Eric Guenterberg, Hassan Ghasemzadeh, Roozbeh Jafari, "Locomotion Monitoring using Body Sensor Networks", *International Conference on Information Processing in Sensor Networks (IPSN)*, April 2008, St. Louis, MO. (Demo Abstract)

Book Chapters / Books

- [B12] Michele Ianni, Antonella Guzzo, Raffaele Gravina, Hassan Ghasemzadeh, Zhelong Wang, "Activity Recognition and Prediction for Smart IoT Environments", Springer, 2024. [Book]
- [B11] Mahdi Pedram, Ramesh Sah, Hassan Ghasemzadeh, "Efficient Sensing and Classification for Extended Battery Life", *Activity Recognition and Prediction for Smart IoT Environments*, Edited by Michele Ianni, Antonella Guzzo, Raffaele Gravina, Hassan Ghasemzadeh, and Zhelong Wang, Springer, pp. 111–140, May 27, 2024. [Chapter]
- [B10] Ali Akbari, Parastoo Alinia, Hassan Ghasemzadeh, Roozbeh Jafari, "Transfer Learning for Wearable Computers", *Wearable Sensors, 2nd Edition, Fundamentals, Implementation and Applications*, Edited by Edward Sazonov, Elsevier, ISBN 9780128192467, page count 660, November 2020. [Chapter]
- [B9] Seyed Ali Rokni, Ramin Fallahzadeh, Hassan Ghasemzadeh, "Autonomous Collaborative Learning in Wearable IoT Applications", *Big Data-Enabled Internet of Things*, Edited by Muhammad U. Shahid Khan, Samee U. Khan, Albert Y. Zomaya, Institution of Engineering and Technolog (IET), ISBN 9781785616365, page count 492, November 2019. [Chapter]
- [B8] Parastoo Alinia, Hassan Ghasemzadeh, "Reliable and Power-Efficient Machine Learning in Wearable Sensors", *Fog Computing: Theory and Practice*, Edited by Albert Y. Zomaya, Assad Abbas, Samee U. Khan, John Wiley & Sons, Hoboken, NJ, USA, 2020. [Chapter]
- [B7] Ali Rokni, Niloofar Hezarjaribi, Hassan Ghasemzadeh, "Smart Medication Management in Chronic Conditions: Current Remote Monitoring Technologies and Future Directions", *Encyclopedia of Healthcare Administration and Management*, Editer by Nilmini Wickramasinghe, IGI Global, January 2017. [Chapter]
- [B6]Hassan Ghasemzadeh, Roozbeh Jafari, "Decision Tree Construction for Event Classification in Distributed Wearable Computers", *Wireless Sensor Technologies*, Edited by Kris Iniewski, Taylor and Francis/CRC Press, September 19, 2013. [Chapter]
- [B5] Roozbeh Jafari, Hassan Ghasemzadeh, Vitali Loseu, Sarah Ostadabbas, "Human Bio-Kinematic Monitoring with Body Area Networks", *Wireless Body Area Networks: Technology, Implementation and Applications*, Edited by Mehmet R. Yuce and Jamil Y. Khan, Pan Stanford Publishing, November 30, 2011. [Chapter]
- [B4] Hassan Ghasemzadeh, Eric Guenterberg, Roozbeh Jafari, "Lightweight Signal Processing for Wearable Body Sensor Networks", *Wearable Monitoring Systems*, Chapter 5, pp. 99-122, Edited by Annalisa Bonfiglio and Danilo D. Rossi, Springer, 2010. [Chapter]
- [B3] Hassan Ghasemzadeh, "Collection of tests in computer science and engineering for graduate level entrance exam" (in Farsi), Vol. 3, *Pardazeshgaran Publisher*, Tehran, 2002. ISBN: 964-7561-01-6. [Book]

- [B2] Hassan Ghasemzadeh, "Collection of tests in computer science and engineering for graduate level entrance exam" (in Farsi), Vol. 2, *Pardazeshgaran Publisher*, Tehran, 2000. ISBN: 964-92996-4-5. [Book]
- [B1] Hassan Ghasemzadeh, Ali Rajabi Barfeh, "Collection of tests in computer science and engineering for graduate level entrance exam" (in Farsi), Vol. 1, *Behravesh Publisher*, Tehran, 1999. ISBN: 964-91934-6-4. [Book]

Patents

- [P9] Hassan Ghasemzadeh, Asiful Arefeen, "Systems and Methods for Explainable and Actionable Counterfactuals for User-Centric Intervention Design", *Provisional US Patent Application Number 055743–818372*, Filed on 8/15/2024. PCT Application Filed August 2024.
- [P8] Hassan Ghasemzadeh, Asiful Arefeen, "System and Methods for Blood Glucose Control", *Provisional US Patent Application Number 055743–771504*, Filed on 9/19/2023. PCT Application Filed August 2024.
- [P7] Hassan Ghasemzadeh, Asiful Arefeen, "Systems and Methods for Modeling and Simulating Glycemic Response for Behavioral Lifestyle Interventions", *Provisional US Patent Application Number 63/508,235*, Filed on 6/14/2023. PCT Application Filed June 2024.
- [P6] Hassan Ghasemzadeh, Asiful Arefeen, "Systems and Methods for an Autoregressive Scheme for Synthetic Time-Series Generation Under Data Scarcity", *Provisional US Patent Application Number 63/508,240*, Filed on 6/14/2023. PCT Application Filed June 2024.
- [P5] Hassan Ghasemzadeh, Niloofar Hezarjaribi, "System and Methods for Nutrition Monitoring", *United States Patent US 10/078,733*, Filed on June 29, 2017; Allowed for Issuance as a Patent on May 30, 2018; Patent issued on September 18, 2018.
- [P4] Hassan Ghasemzadeh, Myung-Kyung Suh, Mars Lan, Majid Sarrafzadeh, Nabil Alshurafa, "Context-Aware Prediction in Medical Systems", *United States Patent US 9,754,081*, Patent issued on September 5, 2017.
- [P3] Majid Sarrafzadeh, Myung-Kyung Suh, Mars Lan, Hassan Ghasemzadeh, "Methods and Systems for Calculating and Using Statistical Models to Predict Medical Events", *U.S. Patent Application 14/424,946*, Application file on August 28, 2013, Application published on September 17, 2015.
- [P2] Majid Sarrafzadeh, Myung-Kyung Suh, Mars Lan, Hassan Ghasemzadeh, "Task Optimization in Remote Health Monitoring Systems", *U.S. Patent Application 14/424,941*, Application file on August 27, 2013, Application published on August 20, 2015.
- [P1] Hassan Ghasemzadeh, Ramyar Saeedi, "System and Methods for Monitoring Edema", *US Provisional Application Number: 62093333*, December 2014.

Teaching Experience

Arizona State University, Phoenix, AZ 2021-Present

- Mobile App Development (BMI 310): Spring 2024
- Embedded Machine Learning (BMI/CEN 598): Spring 2022, Fall 2023, Fall 2024
- Data Structures in Python (BMI 210): Fall 2022
- Foundations BMI Methods I (BMI 502): Fall 2022, Fall 2023, Fall 2024

Washington State University, Pullman, WA 2014-2021

- Systems Programming (CS 360): Spring 2021
- Advanced Data Structures (CS 223): Spring 2018, Fall 2018, Fall 2019
- Embedded Systems (CS 466/566): Fall 2018, Fall 2019
- Introduction to Computer Architecture (CS 260): Fall 2014, Fall 2015, Fall 2016, Fall 2017
- Pervasive Computing (CS 580): Spring 2015, Spring 2016, Spring 2017, Spring 2018

San Diego State University, San Diego, CA 2011-2012

- Co-Instructor - Methods in Bioinformatics and Medical Informatics

University of Texas at Dallas, Richardson, TX 09/2007-05/2010

- Teaching Assistant - Light-weight Embedded Systems, Digital Circuits Design, Introduction to Digital Systems, Introduction to Digital Systems Laboratory, Introduction to Experimental Techniques, Linear Algebra for Engineers

Azad University, Damavand, Tehran, Iran 09/2003-12/2006

- Instructor - Computer Architecture, Data Structures and Algorithms, Discrete Mathematics, Introduction to Computer Programming, Advanced Computer Programming, Introduction to Operating Systems

University of Tehran, Tehran, Iran 09/1999-09/2001

- Teaching Assistant - Advance Computer Architecture, Advanced VLSI Design, Parallel Processing

Shariati Engineering School, Tehran, Iran 2003-2004

- Instructor - Computer Architecture

Applied Science University, Tehran, Iran 2004

- Instructor - Computer Programming

Research Support

- **National Institutes of Health (NIH)**
  Developing a Music Listening mHealth Intervention for Stress Reduction in Early Recovery
  Award #: 1R61AA031474-01
  Hassan Ghasemzadeh (MPI), Michael Cleveland (MPI), Assal Habibi (MPI), Melita Belgrave (Co-I)
  Amount: $1,030,243
  Duration: 08/15/2024 – 07/31/2026
- **National Science Foundation (NSF) AI Institutes Program**
  PARTNER: AIPS: Expanding AI Innovation in Pervasive Systems at Arizona State University
  Award #: IIS–2402650
  Hassan Ghasemzadeh (**PI**), Giulia Pedrielli, Pavan Turaga, Daniel Rivera, Adam Klivans (Co-PIs), Peter Stone, Joydeep Biswas, Amy Zhang, Edison Thomaz, Brad Knox (Senior Personnel)
  Amount: $2,798,425
  Duration: 06/01/2024 – 05/31/2028
- **ASU-Mayo Seed Grant: Mayo Clinic and Arizona State University Alliance for Health Care**
  Machine Learning Design to Predict and Manage Postprandial Hyperglycemia in Patients with Type 1 Diabetes
  Award #: NA
  Hassan Ghasemzadeh (**MPI**), Bithika M. Thompson (MPI), Adela Grando (Co-I), Curtiss B. Cook (Co-I)
  Amount: $100,000
  Duration: 07/01/2023 – 06/31/2024
- **ASU-Mayo Seed Grant: Mayo Clinic and Arizona State University Alliance for Health Care**
  Quantitative Gait Analysis as a novel diagnostic tool and clinical biomarker for Atypical Parkinsonian Syndromes
  Award #: NA
  Daniel Peterson (MPI), Shyamal Mehta (MPI), Hassan Ghasemzadeh (**Co-I**), Kartik Mangipudi (Co-I)
  Amount: $100,000
  Duration: 07/01/2023 – 06/31/2024
- **National Institutes of Health (NIH)**
  IN-home Cognitive Improvement Training using EEG-NFB
  Award #: Subcontract through MassAITC (P30AG073107)
  Hassan Ghasemzadeh (MPI), Robert Hager (MPI)
  Amount: $100,051
  Duration: 06/01/2023 – 05/31/2024
- **ASU College of Health Solutions – CHS Pilot Grant Initiative**
  Predicting risk of exertional heat illness in youth athletes using big (environmental) data and machine learning
  Award #: FP00033923
  Alicia Montalvo (PI), Hassan Ghasemzadeh (**Co-I**)
  Amount: $18,403
  Duration: 04/01/2023 – 03/31/2024
- **Arizona Commerce Authority; WearTech Partnership for Economic Innovation**
  KLS Neonatal Monitoring System

Award #: FP00033923
Hassan Ghasemzadeh (**MPI**), Jennifer B. Christen (MPI), Judith Klein-Seetharaman (MPI)
Amount: $249,998
Duration: 12/01/2022 – 12/01/2024

- **National Science Foundation (NSF) Cyber-Human Systems (CHS) Program**
  CHS: Medium: Behavior360: Learning a Human Behaviorome in Uncontrolled Settings
  Award #: IIS–1954372
  Diane Cook (PI), Hassan Ghasemzadeh (**Co-PI**)
  Amount: $1,155,043
  Duration: 09/01/2020 – 08/31/2024
- **National Science Foundation (NSF) Cyber-Physical Systems (CPS) Program**
  CPS: Small: Human-in-the-Loop Learning of Complex Events in Uncontrolled Environments
  Award #: CNS–1932346 & CNS–2227002
  Hassan Ghasemzadeh (**PI**), Naomi Chaytor (Co-PI)
  Amount: $493,706
  Duration: 01/01/2020 – 12/31/2023
- **National Science Foundation (NSF) Faculty Early Career Development (CAREER)**
  CAREER: Autonomous Wearable Computing for Personalized Healthcare
  Award #: CNS–1750679 & CNS–2210133
  Hassan Ghasemzadeh (**PI**)
  Amount: $547,690 *($515,690 + $32K REU Supplement)*
  Duration: 05/15/2018 – 04/30/2024
- **National Science Foundation (NSF)**
  REU Site: Multidisciplinary Undergraduate Research Training in Wearable Computing
  Award #: 1852163
  Hassan Ghasemzadeh (**PI**)
  Amount: $273,599
  Duration: 05/01/2019 – 04/30/2023
- **National Science Foundation (NSF) Research Initiation Initiative (CRII)**
  CRII: CSR: Multi-View Learning Solutions for Next-Generation Computationally-Autonomous Wearables
  Award #: CNS–1566359
  Hassan Ghasemzadeh (**PI**)
  Amount: $191,000 *($175,000 + $16K REU Supplement)*
  Duration: 05/01/2016 – 04/30/2018
- **National Institutes of Health (NIH) R21**
  Activity-Aware Prompting to Improve Medication Adherence in Heart Failure Patients
  Award #: 1R21NR015410-01
  Hassan Ghasemzadeh (**MPI**), Diane Cook (MPI), Lorraine Evangelista (MPI)
  Amount: $375,251
  Duration: 07/22/2016 – 05/31/2019
- **Rett Syndrome Research Trust (RSRT)**
  RettGait: Pilot Study to Examine Gait Patterns in Children with Rett Syndrome
  Hassan Ghasemzadeh (**PI**)
  Amount: $20,000
  Duration: 02/01/2016 – 06/30/2016

- **Washington State University (WSU) New Faculty Seed Grant Program**
  Algorithms and Software for On-Body Sensor Localization in Smart Health Environments
  Award #: 123191
  Hassan Ghasemzadeh (**PI**)
  Amount: $28,217
  Duration: 05/16/2014 – 08/15/2015
- **University of California San Francisco (UCSF) Resource Allocation Program (RAP)**
  A New "Weigh" to Manage Ascites: Development and Testing of a Weight Monitoring System for Patients with Decompensated Cirrhosis
  Award #: 79976
  Chanda Ho (PI), Hassan Ghasemzadeh (Site PI)
  Amount: $30,000
  Duration: 02/01/2014 – 01/31/2015
- **Washington State University (WSU) Alcohol and Drug Abuse Program (ADARP)**
  Linking EMA and Physiological Data to Understand Recovery Processes in Real Time
  Michael Cleveland (PI), Hassan Ghasemzadeh (**Co-I**), Michael McDonell (Co-I), Patricia Pendry (Co-I)
  Amount: $16,720
  Duration: 07/01/2018 – 12/31/2019
- **National Institutes of Health (NIH) R01**
  Asha Improving Health and Nutrition of Indian Women with Aids and Their Children
  Award #: 1R01MH098728-01A
  Adeline Nyamathi (PI), Hassan Ghasemzadeh (**Project Staff**)
  Amount: $2.9M
  Duration: 7/23/2013 – 3/31/2019
- **National Science Foundation (NSF) Research Experiences for Undergraduates**
  REU Site: Undergraduate Research in Smart Environments
  Award #: IIS–1757632
  Lawrence Holder (PI), Hassan Ghasemzadeh (**Senior Personnel**), Jana Doppa (Senior Personnel), Diane Cook (Senior Personnel)
  Amount: $360,000
  Duration: 03/01/2018 – 02/28/2021
- **National Science Foundation (NSF) Research Experiences for Undergraduates**
  REU Site: Undergraduate Research in Smart Environments
  Award #: IIS–1460917
  Lawrence Holder (PI), Hassan Ghasemzadeh (**Senior Personnel**), Jana Doppa (Senior Personnel), Diane Cook (Senior Personnel), Matthew Taylor (Senior Personnel)
  Amount: $335,000
  Duration: 05/01/2015 – 04/30/2018
- **National Science Foundation (NSF) Conference Travel Grant**
  Supporting US-Based Students to Attend the 2014 ACM UbiComp International Workshop on Smart Health Systems and Applications (SmartHealthSys 2014)
  Award #: 1446362
  Hassan Ghasemzadeh (**PI**), Diane Cook (Co-PI)
  Amount: $10,151
  Duration: 09/1/2014 – 08/31/2015

Students

Graduate Students

- Eric Junyoung Kim, CS PhD Student, Arizona State University (2024–Present)
- Ebrahim Farahmand, CE PhD Student, Arizona State University (2024–Present)
- Saman Khamesian, CS PhD Student, Arizona State University (2024–Present)
- Aashritha Machiraju, BMI MS Student, Arizona State University (2024–Present)
- Pegah Khorasani, BMI PhD Student, Arizona State University (2023–Present)
- Shovito Soumma, BMI PhD Student, Arizona State University (2023–Present)
- Nooshin Taheri Chatrudi, BMI PhD Student, Arizona State University (2023–Present)
- Reza Rahimi Azghan, CS PhD Student, Arizona State University (2023–Present)
- Asiful Arefeen, BMI PhD Student, Arizona State University (2021–Present)
- Abdullah Mamunm, CS PhD Student, Arizona State University (2021–Present)

Graduate Alumni

- Ramesh Kumar Sah, CS PhD (2018-2024): Algorithm Engineer at Startup (2024).
- Seyed Iman Mirzadeh, CS PhD (2018-2022): ML Research Engineer at Apple (2022).
- Mahdi Pedram, CE PhD (2016–2021): Postdoc at Northeastern University (2022); Assistant Professor at DePaul University (2023); Assistant Professor at University of North Texas (2024)
- Parastoo Alinia, CS PhD (2014–2020): Applied Scientist at Amazon.com, Inc. (2020).
- Niloofar Hezarjaribi, CS PhD (2015–2019): Software Engineer at Microsoft (2019).
- Yuchao Ma, CS PhD (2014–2018): Applied Scientist at Amazon.com, Inc. (2018).
- Ramin Fallahzadeh, CS PhD (2014–2018): Postdoctoral Fellow at Stanford University (2018).
- Ali Rokni, CS PhD (2014–2018): Machine Learning Engineer at Yelp, Inc. (2018).
- Zhila Esna Ashari, CS MS (2018–2019): Data Scientist at GoDaddy (2019).
- Marjan Nourollahi, CS MS (2016–2019): Machine Learning Engineer at Rombot (2019).

Undergraduate Students and High School Interns

- Suraj Puvvadi, ASU Honor Student, Parkinson's Disease Project, Biomedical Informatics, Thesis Director, 2024–2025
- Genelle Jenkins, Undergraduate Researcher, Parkinson's Disease Project, Biomedical Informatics, Capstone Project Mentor, 2024–2025
- Dylan Schoemer, Undergraduate Researcher, Digestive Health Project, Biomedical Informatics, Capstone Project Mentor, 2024–2025
- Joseph Simons, Undergraduate Researcher, Heat and Health Project, Biomedical Informatics, Capstone Project Mentor, 2024
- Sadhana Pandarinathan, ASU Honor Student, Evaluating the Heterogeneity of Logistic Regression Models to Predict Coronary Artery Disease Status, Biomedical Informatics, Thesis Director, 2023-2024
- Fatimah Amer, ASU SCENE Intern, Basis Scottsdale Charter School, MelanoInsight: A Novel Early Stage Skin Cancer Predictor Using Graph Neural Networks to Analyze Meta-Analysis for Identifying Pathways Promoting Melanoma Metastasis, 2023-2024

- Daniel Alexander Ramirez, ASU Honor Student, Developing biophysical modeling applets for mathematical biology education, Biomedical Informatics, 2022-2023
- Prisha Shroff, ASU SCENE Intern, Hamilton High School, Chandler, AZ, hyperglycemia prediction project, 2022-2023
- Daniel Faronbi, WSU undergraduate researcher, stress monitoring project, WSU, 2020
- Lucy Mujugira, WSU REU student, multi-modal data analysis, WSU, 2019
- Va Diep, WSU REU student, balance control assessment project, WSU, 2019
- Kaveh Khorram, WSU undergrad researcher, diet planner project, WSU, 2018–2019
- Lucia Martisovitsova, REU (Univ. of Central Florida), compassionate spaces, WSU, 2018
- Brandon Garza, LSAMP scholar, cancer care project, WSU, 2017–Present
- Kameron Haramoto, senior design student, Supportive Care project, WSU, 2017
- Gene Lee, senior design student, Supportive Care project, WSU, 2017
- Kris Taylor, senior design student, Supportive Care project, WSU, 2017
- Nathan Velaborja, senior design student, Supportive Care project, WSU, 2017
- Isun Lee, undergrad researcher, step count data analysis, WSU, 2017
- Nathan Seitz, REU (Univ. of Illinois at Chicago), power estimation, WSU, 2017
- Shane Wilhelm, undergrad researcher, visual field assessment project, WSU, 2016
- Wesley D. Thorsen, undergrad researcher, visual field assessment project, WSU, 2016
- Evan C. Coleman, undergrad researcher, visual field assessment project, WSU, 2016
- Amir H Rezamand, undergrad researcher, hydration monitoring project, WSU, 2016
- Oliver F. Carson, senior design student, Speech2Health project, WSU, 2016
- Joshua M. Kolasch, senior design student, Speech2Health project, WSU, 2016
- An Huu, senior design student, Speech2Health project, WSU, 2016
- Dylan Jamison, senior design student, Speech2Health project, WSU, 2016
- Zach Hamm, senior design student, Speech2Health project, WSU, 2016
- Ryan Torelli , undergrad researcher, SmartSock project, WSU, 2016
- Cody Reynolds, undergrad researcher, nutrition monitoring project, WSU, 2016
- Drew T. Miller, undergrad researcher, nutrition monitoring project, WSU, 2016
- Ellen Louie, REU (George Washington Univ.), segmentation tool, WSU, 2015
- Deontae Pharr, REU (Kennesaw State Univ.), data collection with smartwatch, WSU, 2015
- Jeremy Martinez, senior design student, iREACH project, WSU, 2015
- Faustino Lukolo, senior design student, iREACH project, WSU, 2015
- Jacob Hilaire, senior design student, iREACH project, WSU, 2015
- Kyle Avery, senior design student, iREACH project, WSU, 2015
- James Jessen, senior design student, iREACH project, WSU, 2015
- Sebastian Duboc, LSAMP Scholar, data collection with mobile devices, WSU, 2015
- Darion M. Taylor, undergrad researcher, data collection with mobile devices, WSU, 2014
- Brian Schimert, undergrad researcher, data collection with mobile devices, WSU, 2014
- Sean Thomas Burke, undergrad researcher, activity level visualization, UCLA, 2013
- Jash Neopane, high school intern, smartphone data collection and processing, UCLA, 2012
- Katherine Gilani, undergrad researchers, data collection with wearable sensors, UTD, 2008

Students' Awards and Honors

- Shovito Soumma receives the ASU Graduate College 2024-25 Q3 Travel Award for the AAAI Conference on Artificial Intelligence (AAAI-25), December 2024

- Abdullah Mamun receives the ASU Graduate College 2024-25 Q3 Travel Award for the AAAI Conference on Artificial Intelligence (AAAI-25), December 2024
- Abdullah Mamun wins the Fall 2024 ASU Graduate Student Government (GSG) Teaching Excellence Award, November 2024
- Abdullah Mamun wins the Fall 2024 ASU Graduate Student Government (GSG) Outstanding Research Award, November 2024
- Suraj Puvvadi, undergraduate Honors student, is awarded Bidstrup Foundation Fellowship, October 2024
- Asiful Arefeen wins BHI Student Travel Award, October 2024
- Shovito Soumma wins ASU Graduate Student Government Travel Grant, October 2024
- Saman Khamesian wins BSN Student Travel Award, September 2024
- Pegah Khorasavi wins BSN Student Travel Award, September 2024
- Nooshin Taheri Chatrudi wins BSN Student Travel Award, September 2024
- Shovito Soumma wins ASU Graduate College Travel Award, September 2024
- Team HydroGuard, led by PhD student Shovito Soumma and Asiful Arefeen, is awarded $50,000 through 2024 CHS Heat & Health Research Challenge
- Shovito Soumma and Asiful Arefeen won the 2024 ASU CHS Student Heat and Health Research Challenge
- Shovito Soumma won Spring 2024 Graduate College Graduate Research Support Program (GRSP) grant at ASU
- Prisha Shroff won 2023 Future Innovator of the Year Award (honorable mention) at Governors Celebration of Innovation (GCOI)
- Asiful Arefeen received the ASU graduate college grant ASU for the 2023-2024 session.
- Prisha Shroff won the 1st place at the Junior Science and Humanities Symposium (JSHS) in February 2023.
- Ramesh Kumar Sah spent Spring 2023 as a graduate student intern at Samsung Research America, Mountain View, CA.
- Abdullah Mamun won the BSN 2022 best paper award honorable mention.
- Asiful Arefeen received the CHASE 2022 NSF Student Travel Award.
- Asiful Arefeen received the ASU graduate college grant ASU for the 2022-2023 session.
- Seyed Iman Mirzadeh spent Fall 2021 as a graduate student intern at DeepMind, San Francisco, CA.
- Ramesh Kumar Sah spent Summer 2021 as a graduate student intern at Procter & Gamble, Cincinnati, OH.
- Marjan Nourollahi spent Fall 2018 as a graduate student intern at Bosch Research Group, Sunnyvale, CA.
- Niloofar Hezarjaribi spent Summer 2018 as a software engineering intern at Providence Digital & Innovation, Seattle, WA, 2018.
- Parastoo Alinia spent Summer 2018 as a clinical analytics research intern at Philips Research North America, Cambridge, MA, 2018.
- Ramin Fallahzadeh won EECS Best Graduate Student Researcher Award in Computer Science (awarded to 1 CS student each year), 2018.
- Parastoo Alinia won WSU Graduate & Professional Student Association (GPSA) Teaching Assistant Award of Excellence, 2018.
- Ali Rokni won WSU Russ and Anne Fuller Fellowship for Interdisciplinary Research/Scholarship in both 2017 and 2018. (awarded to 3–5 students university-wide each year)
- Ramin Fallahzadeh won WSU Russ and Anne Fuller Fellowship for Interdisciplinary Research/Scholarship (awarded to 3–5 students university-wide each year), 2018.

- Yuchao Ma received NSF-Supported BSN Conference Student Travel Award, 2018.
- Deontae Pharr, a former REU student, was admitted to the computer science masters program at Georgia State University.
- Parastoo Alinia won WSU School of EECS Outstanding TA Award in Computer Science (awarded to 1 computer science student each year), 2017.
- Ali Rokni won WSU Graduate & Professional Students Association (GPSA) Research Assistant Excellence Award, 2017.
- Ali Rokni spent summer 2016 as an intern at Samsung Research America, Dallas, TX.
- Yuchao Ma won WSU Graduate and Professional Student Association (GPSA) Research Exposition Scholarship.
- Yuchao Ma received NSF-Supported SMARTCOMP student travel award, 2016.
- Yuchao Ma received Grace Hopper (GHC) travel scholarship, 2015.
- Ramin Fallahzadeh received NSF-Supported PerCom student travel award, 2015.
- Yuchao Ma received NSF-Supported PerCom student travel award, 2015.
- Senior design project team consists of undergraduate students Jeremy Martinez, Jacob Hilaire, Kyle Avery, and James Jessen won the runner-up award at senior design competition 2015 for their work on iREACH project.
- Ali Rokni received NSF-Supported ACM Wireless Health conference travel award, 2014.
- Parastoo Alinia received NSF-Supported ACM Wireless Health conference travel award, 2014.

Student Thesis Committee

- Qualifying Exam Committee, Negar Jalili Mallak, Advised by Yalin Wang, ASU Computer Science, 2024
- Honor Thesis Committee, Sanyam Paresh Shah, Advised by Rosemarie Dombrowski, ASU Biomedical Informatics, 2024–2025
- PhD Thesis Committee, Chance Nicholas DeSmet, Advised by Diane Cook, WSU EECS, 2021-2024
- MS Thesis Committee, Novia Shin Ying Chiew, Advised by Carol Johnston, ASU College of Health Solutions 2023–2024
- MS Thesis Committee, Nishtha Shah, Advised by Kookjin Lee & Yunro Chung, ASU CS, 2023
- PhD Thesis Committee, Alireza Ghods, Advised by Diane Cook, WSU EECS, 2021-2023
- PhD Thesis Committee, Erfan Bank Tavakoli, Advised by Fengbo Ren, ASU Computer Engineering, 2022–Present
- PhD Thesis Committee, Lingfeng Xu, Advised by Visar Berisha, ASU Computer Science, 2022–Present
- PhD Thesis Committee, Massinissa Hamidi, Advised by Aomar Osmani, Paris-Nord Computer Science Laboratory (LIPN), 2022
- PhD Thesis Committee, Rylan Fowers, Co-advised by Chad Stecher and Yunro Chung, 2022–Present
- MS Thesis Committee, Cristian Culman, Advised by Diane Cook, WSU EECS, 2019
- PhD Thesis Committee, Rongyang Liu, Advised by Jose Delgado-Frias, WSU EECS, 2019
- MS Thesis Committee, Keyvan Sasani, Advised by Assefaw Gebremedhin, WSU EECS, 2018
- MS Thesis Committee, Yongjun Chen, Advised by Shuiwang Ji, WSU EECS, 2018
- PhD Thesis Committee, Shervin Amini, Advised by Behrooz Shirazi, WSU EECS, 2016–2018
- MS Thesis Committee, Shivam Goel, Advised by Matt Taylor, WSU EECS, 2017
- MS Thesis Committee, Leah Zulas, Advised by Matt Taylor, WSU EECS, 2017

- PhD Thesis Committee, Jennifer Williams, Advised by Diane Cook, WSU EECS, 2015–2017
- PhD Thesis Committee, Gina Sprint, Advised by Diane Cook, WSU EECS, 2015–2016
- PhD Thesis Committee, Alissa Underhill, Advised by Lisa Woodard, WSU Pharmacy, 2014–17

Professional Activities

Journal Editor

- Associate Editor, ACM Transactions on Intelligent Systems and Technology (TIST), 2023–Present
- Associate Editor, IEEE Journal of Biomedical and Health Informatics (J-BHI), 2016–Present
- Academic Editor, PLOS ONE, 2018–Present
- Guest Editor, Frontiers, Special Issue on Wearable Computing Systems and IoMT for Pandemics, 2022
- Guest Editor, Sensors Journal, Special Issue on Multi-sensor fusion in Body Sensor Networks, 2019
- Guest Editor, Information Fusion, Special Issue on Advances in Multi-Sensor Fusion for Body Sensor Networks: Algorithms, Architectures, and Applications, 2018
- Guest Editor, IEEE Access Special Section on Body Area Networks, 2016–2017
- Guest Editor, Sensors Journal, Special Issue on Advances in Body Sensor Networks: Sensors, Systems, and Applications, 2017
- Associate Editor, British Journal of Health Informatics and Monitoring, 2014-2016
- Guest Editor, Information Fusion, Special Issue on Advances in Multi-Sensor Fusion for Body Sensor Networks: Algorithms, Architectures, and Applications, 2016
- Guest Editor, Information Journal, Special Issue on Smart Health, 2015
- Guest Editor, Microprocessors and Microsystems Special issue on Many-Core System-on-Chip: Architectures and Applications, 2015

Organizing Committee

- Technical Program Co-Chair, IEEE International Conference on Biomedical and Health Informatics (BHI 2025)
- Senior Program Committee Member, AAAI Conference on Artificial Intelligence (AAAI 2022-2025)
- Area Chair, IEEE International Conference on Biomedical and Health Informatics (BHI 2024)
- Member, Best Poster Award Committee, IEEE BSN 2023
- Chair, Best Paper Award Committee, IEEE BSN 2022
- Co-Chair, BSN 2023 Workshop on Wearable Systems for Precision Metabolic Health
- Co-Chair, International Workshop on Digital Twin for Precision Health (DT4Health 2023)
- Associate Editor, IEEE International Conference on Biomedical and Health Informatics (BHI 2022)
- Track Co-Chair, IEEE CCNC Track on Wearable Computing Systems: Devices, Applications, and Analytics (2023)
- Program Co-Chair, 7th IEEE Cyber Science and Technology Congress (CyberSciTech 2022)
- Special Session Chair, Toward Artificial General Intelligence for Wearable Systems, Int'l Conf. on Body Sensor Networks (BSN 2021)
- Co-Chair, IEEE CCNC Context-aware/wearable/mobile computing and analytics track (2022)

- Co-Chair, IEEE PerCom Intl. workshop on Pervasive Health Technologies (PerHealth 2021)
- Poster Chair, IEEE Intl. Conf. on Ubiquitous Intelligence and Computing (UIC 2020)
- Associate Editor, IEEE Intl. Conf. on Biomedical and Health Informatics (BHI 2019)
- Member of IEEE Systems, Man, and Cybernetics (SMC) Technical Committee (TC) on Interactive and Wearable Computing and Devices (IWCD) (2016-Present)
- Publicity Co-Chair, IEEE Conf. on Pervasive Computing and Communications (PerCom 2019)
- Demo/Poster Co-Chair, 15th IEEE International Conference on Ubiquitous Intelligence and Computing (UIC 2018)
- TPC Co-Chair, International Conference on Body Sensor Networks (BSN 2018)
- TPC Co-Chair, International Conference on Body Area Networks (BodyNets 2016, 2017)
- Co-Chair, The 2nd International Workshop on Interactive and Wearable Computing and Devices (IWCD 2017) co-located with 14th IEEE International Conference on Networking, Sensing and Control (ICNSC 2017)
- Steering Committee, IEEE Globe-IoT Workshop, The 14th Annual IEEE Consumer Communications & Networking Conference (CCNC 2017)
- Special Session Co-Chair, Special Session on Smart Health, The 11th International Symposium on Reconfigurable Communication-centric Systems-on-Chip (ReCoSoC 2016)
- Demo/WIP Co-Chair, IEEE Int'l Conference on Smart Computing (SmartComp 2016)
- Founding Member, IEEE Technical Committee on Interactive Wearable Computing and Devices (IWCD), 2015
- Co-Chair, ACM MobiHoc Workshop on Pervasive Wireless Healthcare (MobileHealth 2015)
- Advisory Committee Member, The Fourth International Conference on Advances in Vehicular Systems, Technologies and Applications (Vehicular 2015)
- Co-Chair, ACM UbiComp Int'l Workshop on Smart Health Systems (SmartHealthSys 2014)
- Special Track Chair, International Conference on Body Area Networks (BodyNets 2014)
- Track Chair, Cloud Computing and Mobile Healthcare Track, Cairo International Biomedical Engineering Conference (CIBEC 2014)
- Publicity Chair, International Conference on Body Sensor Networks (BSN 2011)
- Demo Chair, International Conference on Body Area Networks (BodyNets 2011)
- Program Track Chair, International Conference on Body Area Networks (BodyNets 2010)
- Advisory Board, Book on E-Healthcare Systems And Wireless Communications: Current And Future Challenges, 2011

TPC Member

- IEEE-EMBS International Conference on Body Sensor Networks (BSN), 2023-2024
- AAAI Conference on Artificial Intelligence (AAAI 2019–Present)
- Workshop on Continual Learning in Computer Vision (CVPR 2024)
- Workshop on Smart Wearable Systems and Applications (SmartWear 2022), co-located with the ACM MobiCom 2022
- Euromicro Conference on Digital Systems Design (DSD2022)
- IEEE Int'l Conf. on Omni-layer Intelligent systems (COINS 2022), Special Session on Cyber-Physical Systems
- AAAI 2022 Undergraduate Consortium
- IEEE Int'l Conf. on Pervasive Computing and Communications (PerCom 2022)
- Int'l Conference on Distributed Computing and Networking (ICDCN 2022)
- IEEE BHI-BSN 2021-2022

- IEEE/ACM Int'l Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE 2016–Present)
- IEEE Int'l Conf. on Omni-layer Intelligent systems (COINS 2020)
- IEEE Int'l Conf. on Communications (ICC), SAC E-Health Track, (ICC 2020)
- Int'l Conf. on VLSI Design and Int'l Conf. on Embedded Systems (VLSID 2020)
- IEEE Transdisciplinary AI (TransAI 2019)
- 22nd Euromicro Conference on Digital System Design (DSD 2015–2021)
- IEEE Int'l Conference on Smart Computing (SmartComp 2019–2020)
- IEEE Workshop on Smart Service Systems (SmartSys 2019) in conjunction with SmartComp 2019
- International Conference on Body Sensor Networks (BSN 2019)
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2016, 2018, 2019)
- Int'l Conference on Mobile Systems and Pervasive Computing (MobiSPC 2017–2018)
- IEEE Int'l Conference on Ubiquitous Intelligence and Computing (UIC 2017–2019)
- GlobalSIP 2017 Symposium On Big Data Analytics for IoT Healthcare
- ACM Workshop on Wearable Systems and Applications (WearSys 2017)
- ACM MobiHoc Workshop on Pervasive Wireless Healthcare (MobileHealth 2017)
- Int'l Workshop on Energy-Aware Computing and Communication for Networked Cyber-Physical Systems (ECC 2017)
- IEEE International Conference on Networking, Sensing and Control (ICNSC 2017)
- Annual IEEE Consumer Communications & Networking Conference (CCNC2017)
- Int'l Workshop on Cloud Services and Web Technologies for Collaboration (CSWC 2016)
- Int'l Workshop on Mining Wearable Data for Healthcare (MWDHealth 2016) in conjunction with the IEEE International Conference on Healthcare Informatics (ICHI 2016)
- ACM Wireless Health Conference (WH 2013–2016)
- IEEE Global Communications Conference: Selected Areas in Communications: E-Health
- IEEE Int'l Workshop on Toward A City-Wide Pervasive EnviRonment (CoWPER 2016), co-located with IEEE SECON 2016
- ACM Int'l Workshop on Manycore Embedded Systems (MES 2016), in conjunction with the 43rd International Symposium on Computer Architecture (ISCA 2016)
- IEEE Int'l Workshop on Interactive Wearable Computing and Devices (CSCWD 2016)
- Annual IEEE Consumer Communications & Networking Conference (CCNC 2016)
- IEEE Int'l Workshop on Deriving Value from Big Data in Healthcare, in conjunction with The IEEE International Conference on Big Data (IEEE BigData 2015)
- ACM Sensys Workshop on Mobile Medical Applications (MMA 2014 , 2015)
- Int'l Conference on Smart Wearable Devices and IoT for Health and Wellbeing Applications (SWIT-Health 2015)
- IEEE Int'l Conference on e-Health Networking, Applications and Services (HealthCom 2015)
- IEEE Global Communications Conference: Selected Areas in Communications: E-Health (GLOBECOM 2015 SAC – E-Health)
- ACM ISCA Third International Workshop on Many-core Embedded Systems (MES 2015)
- IEEE SECON Workshop on Self-organizing Wireless Access Networks for Smart cITY (SWANSITY 2015)
- Int'l Conference on Body Area Networks (BodyNets 2015)
- Int'l Conference on Internet and Distributed Computing Systems (IDCS 2015)
- Int'l Conference on Smart Portable, Wearable, Implantable and Disability-oriented Devices and Systems (SPWID 2015)
- Int'l Summit on Bio-Metrics and Smart Government (IBMSGS 2015)

- Int'l Conf. on Advances in Vehicular Systems, Technologies and Applications (2012–2015)
- Int'l Symposium on Future Information and Communication Technologies for Ubiquitous HealthCare (Ubi-HealthTech 2015)
- Int'l Conference for Smart Health (CSH 2014)
- ACM International Health Informatics Symposium (IHI 2010, 2012, 2014)
- Int'l Conference on Internet and Distributed Computing Systems (IDCS 2014)
- 22nd IFIP/IEEE International Conference on Very Large Scale Integration (VLSI-SoC 2014)
- IEEE Int'l Workshop on Wireless Sensors Networks for Mobile Health (WSN4Health 2014)
- ACM Pervasive Wireless Healthcare Workshop (MobileHealth 2014)
- IEEE Int'l Conference on Healthcare Informatics (ICHI 2014)
- IADIS International Conference on e-Health (EH 2014)
- Int'l Conference on Brain Informatics and Health (BIH 2014)
- Int'l Conference on Global Health Challenges (GLOBAL HEALTH 2014)
- Int'l Conference on Ambient Computing, Applications, Services and Technologies (2014)
- Int'l Health Informatics Conference (IHIC 2013)
- Int'l Conference on Global Health Challenges (GLOBAL HEALTH 2013)
- IFIP/IEEE Int'l Conference on Very Large Scale Integration (VLSI-SoC 2013)
- Int'l Conference on Brain and Health Informatics (BHI 2013)
- Int'l IEEE Conference on Mobile Computing, Applications and Services (MobiCASE 2013)
- Int'l Conference on Body Area Networks (BodyNets 2013)
- IEEE Int'l Conference on Healthcare Informatics (ICHI 2013)
- IEEE SECON 2013 Workshop on Design Challenges in Mobile Medical Device Platforms
- Int'l Workshop on Ubiquitous Media and Embedded Systems (UMES 2011)
- Int'l Workshop on Networking and Communications for Advanced Society (NCAS 2011)
- Int'l Workshop on Advanced Sensor Integration Technology (ASIT 2010)

Conference Session Chair

- IEEE International Conference on Biomedical and Health Informatics (BHI 2024)
- IEEE International Conference on Biomedical and Health Informatics (BHI 2022)
- Int'l Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2022)
- IEEE Int'l Conference on Smart Computing (SmartComp 2020)
- Int'l Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2016)
- IEEE PerCom Int'l Workshop on the Impact of Human Mobility in Pervasive Systems and Applications (PerMoby 2015)
- Int'l Conference on Body Sensor Networks (BSN 2011)
- Wireless Health Conference (WH 2011)

Panelist

- NASA, Smart Medical Systems Technology Panel, 2024
- NIH NIBIB Special Emphasis Panel, 2023-2024
- NIH Clinical Care and Health Interventions Review Branch (CCHI), 2023
- NIH NIBIB BTRC (Biomedical Technology Resource Centers), 2019, 2020
- NSF CISE, 2013-Present

- NSF ENG, 2018, 2019
- NIH Social Sciences and Population Studies Study Section, 2019 (ad-hoc reviewer)
- NIH Digestive Diseases and Nutrition C Subcommittee, DDK-C Committee, 2018 (ad-hoc reviewer)
- NIH Special Emphasis Panel for ZDK1 GRB-J (J2) Study Section, 2017 (ad-hoc reviewer)
- NIH Risk Prevention and Health Behavior Special Emphasis Panel, RPHB C-11, 2016
- Swiss National Science Foundation, 2015

Reviewer

- International Conference on Learning Representations (ICLR)
- Conference on Neural Information Processing Systems (NeurIPS)
- ACM Transactions on Computing for Healthcare
- IEEE Global Conference on Signal and Information Processing (GlobalSIP)
- ACM Transactions on Interactive Intelligent Systems (TiiS)
- IEEE Journal of Biomedical and Health Informatics (JBHI)
- Elsevier Journal of Parallel and Distributed Computing
- Elsevier Clinical Colorectal Cancer
- IEEE Transactions on Human-Machine Systems
- IEEE Design & Test
- Elsevier Sustainable Computing: Informatics and Systems (SUSCOM)
- IEEE/CAS-EMB Biomedical Circuits and Systems Conference (BioCAS)
- ACM Transactions in Embedded Computing Systems (TECS)
- ACM Transactions on Autonomous and Adaptive Systems (TAAS)
- IEEE Transactions on Information Technology in Biomedicine (TITB)
- IEEE Transactions on Biomedical Engineering (TBME)
- IEEE Transactions on Communications (TCOM)
- IEEE Transactions on Parallel and Distributed Systems (TPDS)
- IEEE Sensors Journal
- Elsevier Integration, the VLSI Journal
- Elsevier Journal on Pervasive and Mobile Computing (JPMC)
- Elsevier Information Fusion Journal (INFFUS)
- Springer Neural Computing and Applications (NCA)
- IET Communications Journal
- Sensors Journal
- Iranian Journal of Electrical and Computer Engineering (IJECE)
- Physiological Measurement Journal (PMEA)
- International Conference on Ubiquitous Computing (UbiComp)
- International Conference on Global Health Challenges (GLOBAL HEALTH)
- IEEE International Symposium on Circuits and Systems (ISCAS)
- IEEE Symposium on Industrial Electronics and Applications (ISIEA)
- mHealth Summit
- Book Review for John Wiley and Sons Publisher
- Book Chapter Review for IGI Global Publisher

University Service

- Member, ASU Health Grand Rounds CME Planning Committee, 2024-Present
- Faculty Search Committee, Cytology, ASU College of Health Solutions, 2024
- Member, Faculty Mentoring Committee, ASU College of Health Solutions 2023–Present
- Director, Undergraduate BMI Program, ASU College of Health Solutions 2022–Present
- Graduate Admission Committee, ASU College of Health Solutions, 2021–2024
- PhD Admission Committee, Computer Science, ASU, 2022–2024
- Member, Research Council, ASU College of Health Solutions 2022–Present
- Member, Personnel Committee, ASU College of Health Solutions 2022–Present
- Ad Hoc Annual Review Committee, ASU College of Health Solutions, 2022
- Faculty Search Committee, ASU College of Health Solutions, Biomedical Informatics, 2022
- Member, Graduate Studies Committee (GSC), WSU EECS, 2018-2021
- Member, Faculty Search Committee, WSU EECS, 2019
- Advisor for the student organization Chi Omega Psi, WSU, 2018–2019
- Member, Graduate Studies Committee, WSU EECS, 2016

Invited Talks

- *ASU Annual National Diagnostics Summit, October 17, 2024*, Panelist, Panel on The AI Revolution: Preparing for the Future
- *BRI Network 2024 Artificial Intelligence in Healthcare Summit, April 2024*, Proactive Diabetes Prevention and Management with AI-Driven Wearable Computing
- *Data-Oriented Mathematical and Statistical Sciences (DoMSS) Seminar, School of Mathematical and Statistical Sciences, Arizona State University, February 2024*, AI Design in mHealth Systems
- BMI Seminar, ASU College of Health Solutions, January 2024, Digital Twin for Precision Health
- *BSN 2023 Workshop on Wearable Systems for Precision Metabolic Health, October 2023*, Counterfactual Explanations for Simulating Behavioral Treatments
- *2023 ASU CHS Health, Technology & Equity Virtual Summit, September 2023*, Wearables and AI for Glucose Control
- BMI Seminar, ASU College of Health Solutions, March 2023, Wearable Sensing and Machine Learning for Precision Nutrition
- *CHS Health Talk, ASU College of Health Solutions, January 2023*, Toward Automated, Adaptive, and Personalized Interventions with AI and Machine Learning
- *University of Pittsburgh, Department of Biomedical Informatics, February 2022*, Label-Efficient Machine Learning in Mobile Health
- *Emory University, Health Innovation and Translational Informatics (HITI) lab, September 2021*, Machine Learning Design for Health Monitoring in Human-Centered Dynamic Systems
- *University of California Davis, Department of Electrical and Computer Engineering, April 2021*, Machine Learning Design for Embedded Systems
- *Arizona State University, Biomedical Informatics, April 2021*, Machine Learning Design for Mobile Health
- *Washington State University, Research Week 2020, Mini-Summit on Artificial Intelligence, October 2020*, Machine Learning and Mobile Health

- *University of Idaho, Electrical Engineering (EE) Research Colloquium, October 2020*, From the Lab to the Real-World: Machine Learning Model Personalization
- *Washington State University, Department of Kinesiology and Educational Psychology, September 2020*, Pervasive Computing Technologies for Health Assessment
- *Washington State University, Voiland School of Chemical Engineering and Bioengineering, September 2020*, Designing Mobile Health Systems for Biomarker Discovery
- *University of California Davis, March 2019*, Computational Autonomy for Personalized Healthcare
- *University of California Riverside (UCR), June 2018*, Computational Autonomy: Learning On-the-fly in Medical Embedded Systems
- *WSU School of EECS Executive Council Meeting, April 2018*, Pervasive Computing for Remote Health Monitoring
- *WSU Department of Psychology, Neuropsychology Laboratory, March 2017*, Mobile Health & Wearable Computing
- *Pullman Regional Hospital Health Innovation Summit, October 2017*, Nutrition Monitoring Project Outcomes
- *Pullman Regional Hospital Leadership Meeting, August 2017*, Monitoring and Planning Diet Behavior
- *Pullman Regional Hospital Board of Commissioners Meeting, February 2017*, Nutrition Monitoring from Unstructured Mobile Data
- *The 3rd Int'l Symposium on Automated Sensor Based Mobility Analysis for Disease Prevention and Treatment; At the 12th annual Body Sensor Networks (BSN) Conference, June 2015, MIT, Cambridge, USA*, Mobility Analysis in Visually Impaired Individuals with Wearable Sensors
- *The 12th Annual IEEE Body Sensor Networks Conference (BSN), June 2015, MIT, Cambridge, USA*, Power-Aware Computing in Networked Wearables
- *CMOSETR 2015, May 2015, Vancouver, Canada*, Sustainable Smart Health: Technology Self-Management to Enhance User Compliance
- *New Jersey Institute of Technology (NJIT), February 2013*, Remote Health Monitoring
- *Bowling Green State University (BGSU), February 2013*, Remote Health Monitoring
- *University of California Santa Barbara (UCSB), February 2013*, Remote Health Monitoring
- *Wright State University (WSU), March 2013*, Remote Health Monitoring
- *Michigan Technological University (MT), March 2013*, Remote Health Monitoring
- *Kansas State University (K-State), March 2013*, Remote Health Monitoring
- *Colorado University Boulder (CU Boulder), March 2013*, Remote Health Monitoring
- *University of Kentucky (UK), March 2013*, Remote Health Monitoring
- *Univ of Mass. Lowell (UML), March 2013*, Remote Health Monitoring
- *Old Dominion Univ (ODU), March 2013*, Remote Health Monitoring
- *Clarkson University, April 2013*, Remote Health Monitoring
- *North Dakota State Univ (NDSU), April 2013*, Remote Health Monitoring
- *Lehman College, April 2013*, Remote Health Monitoring
- *Washington State University (WSU), April 2013*, Remote Health Monitoring
- *San Francisco State Univeristy (SFSU), April 2013*, Remote Health Monitoring
- *Tennessee Tech University (TNTECH), April 2013*, Remote Health Monitoring
- Panelist, *IEEE EMBC, September 2012, San Diego, CA*, Panel Discussion: The Role of Wireless Medical Technology in Global Health
- *SPIE NanoScience + Engineering Symposium, August 2012, San Diego, CA*, Power Optimization in Wearable Biomedical Systems: A Signal Processing Perspective

- *UCSD, Department of Computer Science and Engineering, January 2011, San Diego, CA*, Power-Aware Signal Processing for Wireless Health Monitoring

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Conference Presentations

- *IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN), September 2022, Ioannina, Greece*, Multimodal Time-Series Activity Forecasting for Adaptive Lifestyle Intervention Design.
- *IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN), September 2022, Ioannina, Greece*, On-Device Machine Learning for Diagnosis of Parkinson's Disease from Hand Drawn Artifacts.
- *IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN), September 2022, Ioannina, Greece*, Forewarning Postprandial Hyperglycemia with Interpretations using Machine Learning.
- *The 44th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), July 2022, Glasgow, Scotland, United Kingdom*, Boosting Lying Posture Classification with Transfer Learning.
- *The 44th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), July 2022, Glasgow, Scotland, United Kingdom*, Continual Learning for Activity Recognition (Poster).
- *The 44th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), July 2022, Glasgow, Scotland, United Kingdom*, Designing Deep Neural Networks Robust to Sensor Failure in Mobile Health Environments (Poster).
- *The 28th International Joint Conference on Artificial Intelligence (IJCAI), August 2019, Macau, China*, Mindful Active Learning.
- *IEEE Smart Computing Conference (SmartComp), June 2019, Washington DC, USA*, Resource-Efficient Computing in Wearable Systems.
- *Design Automation Conference (DAC), June 2016, Austin, TX, USA*, Plug-n-Learn: Automatic Learning of Computational Algorithms in Human-Centered Internet-of-Things Applications.
- *ACM Wireless Health, October 2015, National Institute of Health, Bethesda, MD*, Gait Pattern Identification in Glaucoma Patients with Wearable Sensors.
- *IEEE/IFIP Network Operations and Management Symposium (NOMS), Krakow, Poland, May 5, 2014*, Wearable Computers: a Holistic Design Approach (Tutorial).
- *ISLPED, Redondo Beach, CA, July 30-August 1, 2012*, Energy-Efficient Signal Processing in Wearable Embedded Systems: An Optimal Feature Selection Approach.
- *mHealthSys, Seattle, WA, November 2011*, Power-Aware Action Recognition with Optimal Sensor Selection: An AdaBoost Driven Distributed Template Matching Approach.
- *ESWEEK, Scottsdale, AZ, October 2010*, A Greedy Buffer Allocation Algorithm for Power-aware Communication in Body Sensor Networks.
- *IEEE SECON, Boston, MA, June 2010*, Data Aggregation in Body Sensor Networks: A Power Optimization Technique for Collaborative Signal Processing.
- *IEEE EMBC, Minneapolis, MN, September 2009*, A Motion Sequence Fusion Technique Based on PCA for Activity Analysis in Body Sensor Networks.
- *HotMobile Doctoral Consortium, Santa Cruz, CA, February 2009*, Power-Aware Signal Processing in Body Sensor Networks.

- *IEEE MASS, Atlanta, GA, September 2008*, A Phonological Expression for Physical Movement Monitoring in Body Sensor Networks.
- *BodyNets, Tempe, AZ, March 2008*, Body Sensor Networks for Health-care Monitoring: Premises, Challenges and Prospective.
- *HealthNet, Breckenridge, CO, June 2008*, Body Sensor Networks to Evaluate Standing Balance: Interpreting Muscular Activities Based on Inertial Sensors.

Other Presentations

- *Webinar for Community College Students in Washington State, October 12th and 13th, 2020*, Wearable Computing and Mobile Health
- *Yakima Valley Community College (YVCC), Yakima, WA, January 2017*, Mobile Health & Wearable Computing
- *Columbia Basin College (CBC), Pasco, WA, January 2017*, Mobile Health & Wearable Computing

News Coverage

Student group wins $50,000 in first-of-its-kind pitch fest at College of Health Solutions **2024**

- ASU News, September 17, 2024: Link[1].

ASU researchers receive $2.8M grant to harness the power of AI for health **2024**

- ASU News, July 08, 2024: Link[2].

Real-time stress detection devices could help fight alcohol relapses **2021**

- WSU Insider, July 21, 2021: Link[3].

NSF REU Project **2019–2020**

- Summer 2020 Virtual REU Program, July 30, 2020: Link[4].
- Crafting Caring Spaces, WSU Voiland College News, November 7, 2019: Link[5].

NSF CAREER **2018**

- WSU EECS Magazine, September 2018: Link[6].
- WSU VCEA News, July 30th, 2018: Link[7].
- WSU Insider, May 14th, 2018: Link[8].
- WSU Provost Perspective, June 2018: Link[9].

Machine learning tool developed to guide cancer treatment **2018**

- WSU Insider, July 26th, 2018: Link[10].

[1] https://news.asu.edu/20240916-health-and-medicine-student-group-wins-50000-seed-money-firstofitskind-pitch-fest-college
[2] https://news.asu.edu/20240708-health-and-medicine-asu-researchers-receive-28m-grant-harness-power-ai-health
[3] https://news.wsu.edu/2021/07/21/real-time-stress-detection-devices-help-fight-alcohol-relapses/
[4] https://news.wsu.edu/2020/07/30/friday-public-research-presentations-online/
[5] https://vcea.wsu.edu/2019/11/07/crafting-caring-spaces/
[6] https://from.wsu.edu/cea/2018/eecs-news/fall/160372-browser.html
[7] https://from.wsu.edu/cea/2018/career/160248-browser.html
[8] https://news.wsu.edu/2018/05/14/two-wsu-faculty-earn-nsf-career-awards/
[9] https://from.wsu.edu/provost/2018/provost-perspective/06/email.html
[10] https://news.wsu.edu/2018/07/26/guide-to-cancer-treatment/

Pullman regional hospital community health impact faculty fellowship **2017**

- Pullman Regional Hospital News, March 29th, 2017: Link[11].
- WSU Insider, March 30th, 2017: Link[12].

SmartSock: monitoring ankle edema at home **2016**

- WSU EECS News, June 7th, 2016: Link[13].
- WSU School of Electrical Engineering and Computer Science Newsletter, 2016, Link[14].

Research center advances work on smart environments **2015**

- WSU Insider, December 9th, 2015: Link[15]

Researchers measure gait to reduce falls from glaucoma **2015**

- WSU Insider, October 20th, 2015: Link[16]

[11] http://pullmanregional.org/about-us/media-center/news/community-health-impact-fellowship-awards-awarded-by-center-for-learning-innovation-at-pullman-regional-hospital

[12] https://news.wsu.edu/2017/03/30/faculty-win-health-outcomes-awards/

[13] https://school.eecs.wsu.edu/smart-sock/

[14] https://vcea.wsu.edu/documents/2016/02/newsletter-eecs-2016.pdf

[15] https://news.wsu.edu/2015/12/09/research-center-advances-work-on-smart-environments/

[16] https://news.wsu.edu/2015/10/20/researchers-measure-gait-to-reduce-falls-from-glaucoma