Suren Jayasuriya

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Education

2012 – 2017	**Ph.D. in Electrical and Computer Engineering, Cornell University** Thesis title: *Plenoptic Imaging and Vision using Angle Sensitive Pixels* Committee: Alyosha Molnar (chair), Alyssa Apsel, Steve Marschner Minor: Computer Science
2015	**M.Sc. in Electrical and Computer Engineering, Cornell University**
2008 – 2012	**B.S. in Mathematics and B.A. in Philosophy, University of Pittsburgh** Graduated *summa cum laude* with departmental honors in Mathematics.

Employment History

2018 – present	**Assistant Professor, Arizona State University** Joint appointment between School of Arts, Media and Engineering (50%, tenure home) and School of Electrical, Computer and Energy Engineering (50%)
2016-2017	**Postdoctoral Fellow, Carnegie Mellon University.** The Robotics Institute, School of Computer Science. Advisor: Srinivasa Narasimhan
Summer 2016	**PhD Research Intern, NVIDIA** Mentors: Orazio Gallo and Jinwei Gu
Summer 2014	**Pixel Characterization Intern, Aptina Imaging**
2012-2016	**Graduate Research Assistant, Cornell University** School of Electrical and Computer Engineering Advisor: Alyosha Molnar

Honors and Awards

2023	Elected to IEEE Senior Member status
2021	Image Electronics Technology Excellence Award from The Institute of Image Electronics Engineers of Japan
	ASU Fulton Schools of Engineering Top 5% Teaching Award
2020	Finalist for Best Diversity, Equity & Inclusion Paper at the American Society of Engineering Education (ASEE) Conference
2019	Best Demo award at International Conference on Computational Photography (ICCP) 2019
	IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2019 Outstanding Reviewer
	ASU Fulton Schools of Engineering Top 5% Teaching Award
2018	Best Demo Award at 21st Meeting on Image Recognition and Understanding (MIRU) [Japanese domestic conference]
	Best Presentation Award for the Information Processing Society of Japan (IPSJ) SIG-CG
2017	International Conference on Computer Vision (ICCV) 2017 Young Researcher Travel Award
2016	2nd place in Cornell University's 3MT (Three Minute Thesis) competition

Honors and Awards (continued)

2015-2016	Winner of the Qualcomm Innovation Fellowship
2015	Cornell ECE Outstanding PhD Teaching Assistant Award
2014	Best Paper award at International Conference on Computational Photography (ICCP) 2014
2013-2017	Received the NSF Graduate Research Fellowship
2012-2013	Received the Jacobs Fellowship from the Cornell ECE Department
2011	University Scholar (awarded to top 2 percent of undergraduates in Pitt's College of Arts and Sciences)
	Culver Award (awarded by Pitt's Department of Mathematics for superior academic achievement, hard work, and proven ability in mathematics)
2008-2012	University of Pittsburgh Honors Tuition Scholarship recipient (4 year full-tuition scholarship given for academic achievement)

Book Chapters

Legend: † is ASU graduate student, ⋆ is ASU undergraduate, ∗ is shared first authorship.

[B5] Ed Finn and **Suren Jayasuriya**, "Cultural Myths and Narratives about Artificial Intelligence" in Reporting on artificial intelligence: a handbook for journalism educators, Editor: Dr. Maarit Jaakkola, UNESCO Series on Journalism Education, 2023 [invited book chapter]

[B4] Terri Kurz, Feyza Kurban, **Suren Jayasuriya**, Kimberlee Swisher, "Middle School Mathematics Lessons Emphasizing Art and Modeling using Visual Computing" in What preK-12 teachers should know about educational technology in 2023: A research-to-practice anthology, Editors: R. Ferdig, R. Hartshorne, E. Baumgartner, R. Kaplan-Rakowski, C. Mouza, Association for the Advancement of Computing in Education, 2023 [book chapter]

[B3] Suren Jayasuriya, "Computational Imaging for Human Activity Analysis", Contactless Human Activity Analysis, 1st Edition, Editors: Md Atiqur Rahman Ahad, Upal Mahbub, Tauhidur Rahman, Springer 2021 [invited book chapter]

[B2] Suren Jayasuriya, "Image Sensors", In Computer Vision: A Reference Guide, 2nd Edition, Editor-in-Chief: Katsushi Ikeuchi, Springer 2020 [invited book chapter]

[B1] Henry Braun†, Pavan Turaga, Andreas Spanias, Sameeksha Katoch†, **Suren Jayasuriya**, Cihan Tepedelenlioglu, Reconstruction-Free Compressive Vision for Surveillance Applications, Synthesis Lectures on Signal Processing, Morgan Claypool, 2019 [booklet]

Journal Publications

Legend: † is ASU graduate student, ⋆ is ASU undergraduate, ∗ is shared first authorship.

[J26] Ziyuan Qu, Omkar Vengurlekar, Mohamad Qadri, Kevin Zhang, Michael Kaess, Christopher Metzler,**Suren Jayasuriya**, Adithya Pediredla, "Z-Splat: Z-Axis Gaussian Splatting for Camera-Sonar Fusion", IEEE Transactions on Pattern Analysis and Machine Intelligence (special issue of ICCP 2024), 2024 [IF: 20.8]

[J25] Terri Kurz, **Suren Jayasuriya**, Kimberlee Swisher, John Mativo, Ramana Pidaparti, Dawn Robinson, "The Impact of Teachable Machine on Middle School Teachers' Perceptions of Science Lessons after Professional Development", Education Sciences (Special Issue on Digital Learning: Exploring the Use of Educational Technology in Educational Environments), 2024 [IF: 3.0]

[J24] Lein de Leon Yong[†] and **Suren Jayasuriya**, "Automated Saliency Prediction in Cinema Studies: Using AI to Map Early Cinema's Use of Visual Saliency", Projections 2023 [IF: 0.227]

[J23] Albert Reed[†], Juhyeon Kim, Thomas Blanford, Adithya Pediredla, Daniel C. Brown, **Suren Jayasuriya**, "Neural Volumetric Reconstruction for Coherent Synthetic Aperture Sonar", ACM Transactions on Graphics (Proceedings of SIGGRAPH) 2023 [IF: 6.2]

[J22] **Suren Jayasuriya**, Odrika Iqbal[†], Venkatesh Kodukula[†], Victor Torres[†], Robert LiKamWa, Andreas Spanias, "Software-Defined Imaging: A Survey", Proceedings of the IEEE 2023 [IF: 20.6]

[J21] Sameeksha Katoch*[†], Odrika Iqbal*[†], Andreas Spanias, **Suren Jayasuriya**, "Energy-Efficient Object Tracking using Adaptive ROI Subsampling and Deep Reinforcement Learning", IEEE Access 2023 [IF: 3.367]

[J20] Jianwei Zhang[†], Julie Liss, **Suren Jayasuriya**, Visar Berisha, "Robust Vocal Quality Feature Embeddings for Dysphonic Voice Detection", IEEE Transactions on Audio, Speech and Language Processing 2023 [IF: 4.364]

[J19] Terri Kurz, **Suren Jayasuriya**, Kimberlee Swisher, John Mativo, Ramana Pidaparti, and Dawn Robinson. "Investigating Changes in Teachers' Perceptions about Artificial Intelligence after Virtual Professional Development", Journal of Interactive Learning Research 2023 [IF: Not available]

[J18] Xiaomeng Liu, Joshua Rego[†], **Suren Jayasuriya**, Sanjeev Koppal, "Event-based Dual Photography for Transparent Scene Reconstruction", Optics Letters 2023 [IF: 3.866]

[J17] Albert Reed[†], Thomas Blanford, Daniel Brown, **Suren Jayasuriya**, "SINR: Deconvolving Circular SAS Images Using Implicit Neural Representations", IEEE Journal of Selected Topics in Signal Processing (special issue) 2023 [IF: 7.5]

[J16] Ripon Saha[†], Esen Salcin, Jihoo Kim, Joseph Smith, **Suren Jayasuriya**, "Turbulence Strength C_n^2 Estimation from Video using Physics-based Deep Learning", Optics Express 2022 [IF: 3.894]

[J15] Odrika Iqbal[†], Victor Torres[†], Sameeksha Katoch[†], Andreas Spanias, **Suren Jayasuriya**, "Adaptive Subsampling for ROI-based Visual Tracking: Algorithms and FPGA Implementation", IEEE Access 2022 [IF: 3.367]

[J14] Jianwei Zhang[†], Hao Ren, **Suren Jayasuriya**, Xiaojun Tian, Junseok Chae, "The Biological Memory Effect in Microbial Fuel Cell Biosensors", IEEE Sensors Journal 2022 [IF: 4.325]

[J13] Joshua Rego[†], Huaijin Chen, Shuai Li, Jinwei Gu, **Suren Jayasuriya**, "Deep Camera Obscura: An Image Restoration Pipeline for Lensless Pinhole Photography", Optics Express 2022 [IF: 3.894]

Journal Publications (continued)

[J12] Karthik K Kulkarni[†], Florian A Schneider[†], Tejaswi Gowda, **Suren Jayasuriya**, Ariane Middel, "MaRTiny-A Low-Cost Bio-meteorological Sensing Device with Embedded Computer Vision for Urban Climate Research", Frontiers in Environmental Science (special topic on Urban Climate Informatics) 2022 [IF: 4.24]

[J11] Sreenithy Chandran[†], Hiroyuki Kubo, Tomoki Ueda, Takuya Funatomi, Yasuhiro Mukaigawa, **Suren Jayasuriya**, "Slope Disparity Gating: Systems and Applications", IEEE Transactions on Computational Imaging 2022 [IF: 3.49]

[J10] Tsuji Mayuka, Hiroyuki Kubo, **Suren Jayasuriya**, Takuya Funatomi, Yasuhiro Mukaigawa, "Touch Sensing for a Projected Screen Using Slope Disparity Gating", IEEE Access 2021 [IF: 3.367]

[J9] Catherine Chong, Jianwei Zhang[†], Jing Li, Teresa Wu, Gina Dumkrieger, Simona Nikolova, Katherine Ross, Gabriela Stegmann, Julie Liss, Todd J Schwedt, **Suren Jayasuriya**, Visar Berisha, "Altered Speech Patterns in Subjects with Post-Traumatic Headache due to Mild Traumatic Brain Injury", The Journal of Headache and Pain 2021 [IF: 7.277]

[J8] Xiaomeng Liu, Kristofer Henderson, Joshua Rego[†], **Suren Jayasuriya**, Sanjeev Koppal, "Dense Lissajous Sampling and Interpolation for Dynamic Light-Transport", Optics Express 2021 [IF: 3.894]

[J7] Joshua Cruz[†],Noa Bruhis[†], Nadia Kellam, **Suren Jayasuriya**, "Students' Implicit Epistemologies when Working at the Intersection of Engineering and the Arts", International Journal of STEM Education 2021 [IF: 5.012]

[J6] Hiroyuki Kubo, **Suren Jayasuriya**, Takafumi Iwaguchi, Takuya Funatomi, Yasuhiro Mukaigawa, Srinivasa Narasimhan, "Programmable Non-Epipolar Indirect Light Transport: Capture and Analysis", IEEE Transactions on Visualization and Computer Graphics 2021 (Presented as a demo at the Consumer Entertainment Showcase (CES) 2020), [IF: 4.558]

[J5] Ravi Bhushan*, Karthik Kulkarni*, Vishal Pandey*, Connor Rawls, Brandon Mechtley, **Suren Jayasuriya**, Christian Ziegler, "ODO: Design of Multimodal Chatbot for an Experiential Media System", Multimodal Technologies and Interaction 2020 [CiteScore: 3.7]

[J4] Kristofer Henderson, Xiaomeng Liu, Justin Folden, Brevin Tilmon, **Suren Jayasuriya**, Sanjeev Koppal, "Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition", IEEE Transactions on Computational Imaging (TCI) 2020 [IF: 4.015]

————————————————Journal Papers Prior to ASU————————————————-

[J3] Jagpreet Chhatwal*, **Suren Jayasuriya*** Elamin Elbasha. "Changing Cycle Lengths in State-Transition Models: Challenges and Solutions". Medical Decision Making, July 2016. [IF: 2.309]

[J2] **Suren Jayasuriya**, Sriram Sivaramakrishnan, Ellen Chuang, Debashree Guruaribam, Albert Wang, Alyosha Molnar. "Dual Light Field and Polarization Imaging using CMOS Diffractive Image Sensors", Optics Letters 2015 [IF: 3.866]

[J1] **Suren Jayasuriya**, Zachary P. Kilpatrick. "Effects of Time-Dependent Stimuli in a Competitive Neural Network Model of Perceptual Rivalry". Bulletin of Mathematical Biology. Vol 24, No 6: 1396-1426 (2012). [IF: 1.812]

Conference Publications

Legend: † is ASU graduate student, ⋆ is ASU undergraduate, ∗ is shared first authorship. Note: CS conferences in computer vision (CVPR/ICCV/ECCV), machine learning (NeuRIPS, ICML), and computer architecture (ISCA, MICRO, ASPLOS) are considered archival and major publications rather than journals.

[C43] Dehao Qin, Ripon Saha†, Woojeh Chung⋆, **Suren Jayasuriya**, Jinwei Ye, and Nianyi Li. "Unsupervised Object Segmentation for Video With Atmospheric Turbulence". European Conference on Computer Vision (ECCV) 2024 [acceptance rate ≈ 25%]

[C42] Shenbagaraj Kannapiran†∗, Sreenithy Chandran†∗, **Suren Jayasuriya**, and Spring Berman. "An Attention Network-Based Approach to Dynamic Non-Line-Of-Sight Human Tracking Using a Mobile Robot". IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2024 [acceptance rate 40-50%]

[C41] Md Farhan Tasnim Oshim, Albert Reed†, **Suren Jayasuriya**, and Tauhidur Rahman. "NeRF-Inspired Analysis-Through-Synthesis Framework for ISAR Imaging". IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2024 [acceptance rate 40-50%]

[C40] Ripon Saha†, Dehao Qin, Nianyi Li, Jinwei Ye, and **Suren Jayasuriya**. "Turb-Seg-Res: A Segment-then-Restore Pipeline for Dynamic Videos with Atmospheric Turbulence", IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2024 [acceptance rate 25-30%]

[C39] Sreenithy Chandran†, Tatsuya Yatagawa, Hiroyuki Kubo, **Suren Jayasuriya**. "Learning-based Spotlight Position Optimization for Non-Line-of-Sight Human Localization and Posture Classification", IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) 2024 [acceptance rate 30%]

[C38] **Suren Jayasuriya**, Kimberlee Swisher, Joshua Rego†, Sreenithy Chandran†, John Mativo, Terri Kurz, Cerenity Collins, Dawn Robinson, Ramana Pidaparti, "ImageSTEAM: Teacher Professional Development for Integrating Visual Computing into Middle School Lessons", The 14th Symposium on Educational Advances in Artificial Intelligence (EAAI-24) 2024 [no acceptance rate info]

[C37] Jianwei Zhang†, **Suren Jayasuriya**, Visar Berisha. "Learning Repeatable Speech Embeddings Using An Intra-class Correlation Regularizer", Thirty-seventh Conference on Neural Information Processing Systems (NeurIPS), 2023 [typically 25-30% acceptance rate]

[C36] Gregory Vetaw†, Benjamin Cowen, Daniel C. Brown, David P. Williams, **Suren Jayasuriya**, "Learning-based Tone Mapping to Improve 3D SAS ATR", International Geoscience and Remote Sensing Symposium (IGARSS) 2023 [typically 40-50% acceptance rate]

[C35] Kimberlee Swisher, Terri Kurz, **Suren Jayasuriya**, J. Covert†, John Mativo, Ramana Pidaparti, Dawn Robinson, "Middle School Teachers' Perceptions of Computer Vision". In Elizabeth Langran (Ed.) Proceedings of Society for Information Technology & Teacher Education International Conference (pp. 1824-'829). New Orleans, LA, United States: Association for the Advancement of Computing in Education (AACE) 2023 [typically 50-60% acceptance rate]

Conference Publications (continued)

[C34] Md Farhan Tasnim Oshim, Toral Surti, Charlotte Goldfine, Stephanie Carreiro, Deepak Ganesan, **Suren Jayasuriya**, Tauhidur Rahman, "Eulerian Phase-based Motion Magnification for High Fidelity Vital Sign Estimation with Radar in Clinical Settings", IEEE Sensors Conference 2022 [typically 40-50% acceptance rate]

[C33] Sreenithy Chandran[†], Yannick Hold-Geoffroy, Kalyan Sunkavalli, Zhixin Shu, **Suren Jayasuriya**, "Temporally Consistent Relighting for Portrait Videos", Workshop on Applications of Computational Imaging co-located with WACV 2022 [typically 40-50% acceptance rate]

[C32] Terri Kurz, **Suren Jayasuriya**, Joshua Rego[†], Kelly Jackson[†], Kimberlee Swisher, John Mativo, Ramana Pidaparti, Dawn Robinson, Cerenity Collins (2021). "Changes in Middle School Teachers' Thinking after Engaging in Professional Development Emphasizing Computer Vision". In E. Langran & D. Rutledge (Eds.), Proceedings of SITE Interactive Conference (pp. 313-317). Online, United States: Association for the Advancement of Computing in Education (AACE) [typically 60 and higher% acceptance rate]

[C31] Albert Reed[†], Thomas E. Blanford, Daniel C. Brown, **Suren Jayasuriya**, "Implicit Neural Representations for Deconvolving SAS Images", MTS/IEEE Oceans 2021 [typically 40-50% acceptance rate]

[C30] Gregory Vetaw[†], Albert Reed[†], Daniel C. Brown, **Suren Jayasuriya**, "A 3D GAN Architecture for Volumetric Synthetic Aperture Sonar", MTS/IEEE Oceans 2021 [typically 40-50% acceptance rate]

[C29] Albert Reed[†], Hyojin Kim, Rushil Anirudh, K. Aditya Mohan, Kyle Champley, Jingu Kang, **Suren Jayasuriya**, "Dynamic CT Reconstruction from Limited Views with Implicit Neural Representations and Parametric Motion Fields", IEEE International Conference on Computer Vision (ICCV) 2021 [typically 20-30% acceptance rate]

[C28] Nianyi Li, Simron Thapa, Cameron Whyte[†], Albert Reed[†], **Suren Jayasuriya**, Jinwei Ye, "Unsupervised Non-Rigid Image Distortion Removal via Grid Deformation", IEEE International Conference on Computer Vision (ICCV) 2021 [typically 20-30% acceptance rate]

[C27] Dominique Dredd*, Nadia Kellam, **Suren Jayasuriya**, "Zen and the Art of STEAM: Student Knowledge and Experiences in Interdisciplinary and Traditional Engineering Capstone Experiences", IEEE Frontiers in Education (FIE) 2021 [typically 50 or higher% acceptance rate]

[C26] Madeleine Jennings[†], Jorge Sandoval,[†] Jeanne Sanders, Mirka Koro, Nadia Kellam, **Suren Jayasuriya**, "WIP: Use of AI-Generated Visual Media in Interviews to Understand Power Differentials in Gender, Romantic, and Sexual Minority (GRSM) Students", IEEE Frontiers in Education (FIE) 2021 [typically 50 or higher% acceptance rate]

[C25] Jianwei Zhang[†], **Suren Jayasuriya**, Visar Berisha, Restoring degraded speech via a modified diffusion model, INTERSPEECH 2021 [typically 30-40% acceptance rate]

[C24] Joshua Rego[†], Karthik Kulkarni[†], **Suren Jayasuriya**, "Robust Lensless Image Reconstruction via PSF Estimation", IEEE Winter Conference on Applications of Computer Vision (WACV) 2021 [typically 30-40% acceptance rate]

Conference Publications (continued)

[C23] John Janiczek[†], Parth Thaker[†], Gautam Dasarathy, Christopher Edwards, Philip Christensen, **Suren Jayasuriya**, "Differentiable Programming for Hyperspectral Unmixing using a Physics-based Dispersion Model", European Conference on Computer Vision (ECCV) 2020 [typically 25-28% acceptance rate]

[C22] Odrika Iqbal[†], Saquib Siddiqui[†], Joshua Martin[*], Sameeksha Katoch[†], Andreas Spanias, Daniel Bliss, **Suren Jayasuriya**, "Design and FPGA Implementation of an Adaptive Video Subsampling Algorithm for Energy-Efficient Single Object Tracking", IEEE International Conference on Image Processing (ICIP) 2020 [typically 50-60% acceptance rate or higher]

[C21] Olivia Christie[*], Joshua Rego[†], **Suren Jayasuriya**, "Analyzing Sensor Quantization of RAW Images for Visual SLAM", IEEE International Conference on Image Processing (ICIP) 2020 [typically 50-60% acceptance rate or higher]

[C20] Madeleine Jennings[†], Rod Roscoe, Nadia Kellam, **Suren Jayasuriya**, "A Review of the State of LGBTQIA+ Student Research in STEM and Engineering Education", American Society of Engineering Education (ASEE) Conference 2020 (Finalist for Best Diversity, Equity & Inclusion Paper) [acceptance rate not available]

[C19] Malena Espanol, **Suren Jayasuriya**, Mohit Malu†, "Multilevel Methods for Imaging Applications", OSA Imaging and Applied Optics Congress 2020 (invited abstract/talk), [2 page technical abstract]

[C18] Albert Reed†, Isaac Gerg, John McKay, Daniel C. Brown, David Williams, **Suren Jayasuriya**, "Using Rendering and Generative Adversarial Neworks for Artificial SAS Image Generation", MTS/IEEE Oceans 2019 [typically 50-60% acceptance rate]

[C17] Divya Mohan[*], Sameeksha Katoch[†], **Suren Jayasuriya**, Pavan Turaga, Andreas Spanias, "Adaptive Video Subsampling for Energy-Efficient Object Detection", 53nd Asilomar Conference on Signals, Systems and Computers 2019 [acceptance rate not available]

[C16] Tomoki Ueda, Hiroyuki Kubo, **Suren Jayasuriya**, Takuya Funatomi, Yasuhiro Mukaigawa, "Slope Disparity Gating using a Synchronized Projector-Camera System", IEEE International Conference on Computational Photography (ICCP) 2019 (Best Demo Award) [typically 40-50% acceptance rate]

[C15] Sreenithy Chandran† and **Suren Jayasuriya**, "Adaptive Lighting for Data-Driven NLOS 3D Localization and Object Identification", British Machine Vision Conference (BMVC) 2019, (Spotlight paper with 8.5% acceptance rate)

[C14] Joshua Cruz†, Noa Bruhis†, Nadia Kellam, **Suren Jayasuriya**, "WIP: Epistemologies and Discourse Analysis for Transdisciplinary Capstone Projects in a Digital Media Program", American Society of Engineering Education (ASEE) 2019 [acceptance rate not available]

[C13] Divya Mohan[*], Sameeksha Katoch[†], **Suren Jayasuriya**, Pavan Turaga, Andreas Spanias, "An REU Experience in Machine Learning and Computational Cameras", IEEE Frontiers in Education (FIE) 2019 [typically 50-60% acceptance rate or higher]

Conference Publications (continued)

[C12] Rajhans Singh†, Pavan Turaga, **Suren Jayasuriya**, Ravi Garg, Martin Braun, "Non-Parametric Priors For Generative Adversarial Networks", International Conference on Machine Learning (ICML) 2019 [22% acceptance rate]

[C11] Mark Buckler, Philip Bedoukian, **Suren Jayasuriya**, Adrian Sampson. "EVA^2: Exploiting Temporal Redundancy for Live Computer Vision", International Symposium on Computer Architecture (ISCA) 2018 [16% acceptance rate]

[C10] Li-Chi Huang†, Kuldeep Kulkarni†, Anik Jha†, Suhas Lohit†, **Suren Jayasuriya**, Pavan Turaga. "CS-VQA: Visual Question Answering with Compressively Sensed Images", IEEE International Conference on Image Processing (ICIP) 2018 [typically 50-60% acceptance rate or higher]

————————————————–Conference Papers Prior to ASU————————————————-

[C9] Hiroyuki Kubo, **Suren Jayasuriya**, Takafumi Iwaguchi, Takuya Funatomi, Yasuhiro Mukaigawa, Srinvasa Narasimhan, "Acquiring and Characterizing Plane-to-Ray Indirect Light Transport", IEEE International Conference on Computational Photography (ICCP) 2018 (received the Best Demo Award at 21st Meeting on Image Recognition and Understanding (MIRU) 2018 & the best presentation award at Information Processing Society of Japan (IPSJ) SIG-CG in 2018) [typically 40-50% acceptance rate]

[C8] Mark Buckler, **Suren Jayasuriya**, Adrian Sampson. "Reconfiguring the Imaging Pipeline for Computer Vision", International Conference on Computer Vision (ICCV) 2017 [25% acceptance rate]

[C7] Mayank Gupta†*, Arjun Jauhari*, Kuldeep Kulkarni†, **Suren Jayasuriya**, Alyosha Molnar, Pavan Turaga, "Compressive Light Field Reconstructions using Deep Learning". CVPR Workshop on Computational Cameras and Displays (CCD) 2017. [acceptance rate not available]

[C6] **Suren Jayasuriya**, Orazio Gallo, Jinwei Gu, Timo Aila, Jan Kautz. "Reconstructing Intensity Images from Binary Spatial Gradient Cameras". CVPR Workshop on Embedded Vision (EVW) 2017 [acceptance rate not available]

[C5] Mark Buckler, **Suren Jayasuriya**, Adrian Sampson."Rethinking the Camera Pipeline for Computer Vision", Workshop on Approximate Computing across the Stack (WAX) 2017 [acceptance rate not available]

[C4] Huaijin Chen*, **Suren Jayasuriya***, Jiyue Yang, Judy Stephen, Sriram Sivaramakrishnan, Ashok Veeraraghavan, Alyosha Molnar. "ASP Vision: Optically Computing the First Layer of CNNs using Angle Sensitive Pixels", IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2016 (oral presentation, <4% of submissions), [Acceptance rate 25%, oral acceptance rate: 4%]

[C3] **Suren Jayasuriya**, Adithya Pediredla, Sriram Sivaramakrishnan, Alyosha Molnar, Ashok Veeraraghavan. "Depth Fields: Extending Light Field Techniques to Time-of-Flight Imaging", International Conference on 3D Vision (3DV) 2015 (oral presentation with 20% acceptance rate)

[C2] **Suren Jayasuriya***, Dong Yang*, Alyosha Molnar. "A Baseband Technique for Automated LO Suppression Achieving below -80dBm in Wideband Passive Mixer-First Receivers". IEEE Custom Integrated Circuits Conference (CICC), September 2014. [typically 40-50% acceptance]

Conference Publications (continued)

[C1] Matthew Hirsch*, Sriram Sivaramakrishnan*, **Suren Jayasuriya***, Albert Wang, Alyosha Molnar, Ramesh Raskar, Gordon Wetzstein. "A Switchable Light Field Camera Architecture using Angle Sensitive Pixels and Dictionary-based Sparse Coding". IEEE International Conference on Computational Photography (ICCP) 2014 (Best Paper Award) [typically 40-50% acceptance]

Publications in Review

Legend: † is ASU graduate student, ⋆ is ASU undergraduate, ∗ is shared first authorship. Note: CS conferences in computer vision (CVPR/ICCV/ECCV), machine learning (NeuRIPS, ICML), and computer architecture (ISCA, MICRO, ASPLOS) are considered archival and major publications rather than journals.

[S1] Gregory Vetaw†, Benjamin Cowen, Daniel C. Brown, David P. Williams, and **Suren Jayasuriya**, "Volumetric Hadamard Normalization for Sub-Bottom SAS ATR", submitted to IEEE Journal of Oceanic Engineering

Juried Public Exhibitions and Demonstrations

[D2] Chris Ziegler (Contributions by Ravi Bhushan, Karthik Kulkarni, Vishal Pandey, and Suren Jayasuriya for building the multimodal chatbot), No Body lives here (ODO), Performance, Exhibition at Artificial Empathy Symposium, Center for Art and Media ZKM Karlsruhe, September 2020

[D1] Hiroyuki Kubo, Suren Jayasuriya, Takafumi Iwaguchi, Takuya Funatomi, Yasuhiro Mukaigawa, Srinivasa Narasimhan, "Programmable Non-Epipolar Indirect Light Transport: Capture and Analysis" presented as a demo at the Consumer Entertainment Showcase (CES), January 2020

Patents

[P6] Suren Jayasuriya, Odrika Iqbal, Andreas Spanias, Tracking-based Motion Deblurring via Coded Exposure, US Patent 11,880,984 B2, 2024

[P5] Hyojin Kim, Rushil Anirudh, Kyle Champley, Kadri Aditya Mohan, Albert William Reed, Suren Jayasuriya, Reconstruction of dynamic scenes based on differences between collected view and synthesized view, US Patent 11,741,643 B2, 2023

[P4] Andreas Spanias, Pavan Turaga, Sameeksha Katoch, Suren Jayasuriya, Divya Mohan, Adaptive video subsampling for energy efficient object detection, US Patent 11,481,881 B2, 2022

[P3] Sreenithy Chandran and Suren Jayasuriya, Systems and methods for adaptive lighting for data-driven non-line-of-sight three-dimensional capabilities, US Patent 11,127,159 B2, 2021

[P2] Alyosha Molnar, Suren Jayasuriya, Sriram Sivaramakrishnan, Depth Field Imaging Apparatus, Methods, and Applications, US Patent 10,983,216 B2, 2021

[P1] Mark Buckler, Adrian Sampson, Suren Jayasuriya, Configurable image processing system and methods for operating a configurable image processing system for multiple applications, US Patent 10,735,675 B2, 2020

External Grants (Total Awarded: ≈$5.1M; Investigator Share: ≈$3.2M)

[G22] National Science Foundation: "Using Visual Computing to Deepen Mathematical Learning", $750,000 (my share: $300,000), PI: Terri Kurz, Co-PIs: Kimberlee Swisher, Suren Jayasuriya (40% share), 2024-2027

[G21] IARPA, Main: Kitware, Inc: Subcontract, "Enhancing Biometrics through Turbulent Imaging", $173,506, PI: Jayasuriya (100% share), 2023-2024

[G20] Office of Naval Research: " Enhancing Automatic Target Recognition with Implicit Neural Networks for Synthetic Aperture Sonar Deconvolution", $299,978, PI: Jayasuriya (100% share), 2023-2026

[G19] National Science Foundation: "Collaborative Research: CIF: Small: Acoustic-Optic Vision - Combining Ultrasonic Sonars with Visible Sensors for Robust Machine Perception", $300,000, PI: Jayasuriya (100% share), 2023-2026

[G18] National Science Foundation: "Collaborative Research: RI: Small: Motion Fields Understanding for Enhanced Long-Range Imaging", $149,995, PI: Jayasuriya (100% share), 2023-2025

[G17] National Science Foundation: "CC* Compute: The Arizona Federated Open Research Computing Enclave (AFORCE)", $399,997 (my share: $43999), PI: Jannewein (ASU) , Co-PI: Jayasuriya (11% share), 2021 - 2023

[G16] Air Force SBIR Phase II, Main: Astrobotic: Subcontract, "RetiNav: Event-driven Relative Navigation", $170,000, PI: Suren Jayasuriya (100% share), 2021-2023

[G15] Air Force SBIR Phase I, Main: Astrobotic: Subcontract, "RetiNav: Event-driven Relative Navigation", $10,002, PI: Suren Jayasuriya (100% share), 2021

[G14] National Endowment of the Humanities: "Artificial Intelligence in Digital Culture: Undergraduate Certificate Program in Intelligent Media and Society", $100,000 (my share: $50,000), PI: Suren Jayasuriya (50% share), Co-PIs: Ed Finn (ASU), Sha Xin Wei (ASU) , 2021-2025

[G13] DoD SERDP: "Joint Beamforming and Automated Target Recognition for SAS", $149,566 PI: Suren Jayasuriya (100% share), 2021 -2023

[G12] Office of Naval Research: "Improving Automatic Target Recognition through Dataset Augmentation using Generative Adversarial Networks in Synthetic Aperture Sonar ", $298,730, PI: Jayasuriya (100% share), 2020 - 2023

[G11] National Science Foundation: "DTI: ImageSTEM: Middle School Teacher and Student's Experiences with Artificial Intelligence via Computational Cameras", $797,174 (my share: $479,304), PI: Suren Jayasuriya (60% share), Co-PIs: Kimberlee Swisher (ASU), Wendy Barnard (ASU), Terri Kurz (ASU), Ramana Pidaparti (UGA), Dawn Robinson (UGA), John Mativo (UGA), 2020-2024

[G10] National Science Foundation: "JST: SCC-PG: Understanding Heat Resiliency via Physiological, Mental, and Behavioral Health Factors for Indoor and Outdoor Urban Environments", $75,000 (my share: $32,500), PI: Jayasuriya (50% share), Co-PIs: Ariane Middel (ASU), Tauhidur Rahman (UMass Amherst), Jamie Mullins (UMass Amherst), 2020 - 2021

External Grants (Total Awarded: ≈$5.1M; Investigator Share: ≈$3.2M) (continued)

[G9] National Science Foundation: "REU Site: Computational Imaging and Mixed-Reality for Visual Media Creation and Visualization", $324,000 (my share: $129,600), PI: Jayasuriya (40% share), Co-PIs: Robert LiKamWa (ASU), Andreas Spanias (ASU), National Science Foundation 2020-2023

[G8] Qualcomm: "Adaptive Image Subsampling via Reinforcement Learning for Energy-Efficient Object Detection", $80,000 (my share: $56,000), PI: Jayasuriya (70% share), Co-PI: Andreas Spanias, 2020 - current

[G7] National Science Foundation: "REU Supplement: SHF: Small: Collaborative Research: Software-Defined Imaging for Energy-Efficient Visual Computing", $16,000 (my share: $8000), PI: Suren Jayasuriya (50% share), Co-PIs: Robert LiKamWa (ASU), 2020-2024

[G6] National Science Foundation: "Software-Defined Imaging for Energy-Efficient Visual Computing", $332,999 (my share: $166,499.50), PI: Suren Jayasuriya (50% share), Co-PIs: Robert LiKamWa (ASU), Adrian Sampson (Cornell), 2019-2024

[G5] National Science Foundation: "Dynamic Light Transport Acquisition and Applications to Computational Illumination", $250,000, PI: Jayasuriya (100% share), National Science Foundation SHF, 2019-2024

[G4] National Endowment of the Humanities: "Technological Anxiety and Hope: Artificial Intelligence in Digital Culture", $34,999 (my share: $13,999), PI: Suren Jayasuriya (40% share), Co-PIs: Ed Finn (ASU), Pavan Turaga (ASU), Sha Xin Wei (ASU) , 2019-2021

[G3] National Science Foundation: "REU Supplement: Research Initiation: Exploring Epistemologies where Engineering Meets Art", $12,800 (my share: $6,400), PI: Suren Jayasuriya (50% share), Co-PI: Nadia Kellam (ASU), 2019-2020

[G2] Intel Corporation: "Generative Adversarial Nets for Robust Defect Classification", Total: $179,095 (my share: $53,728.50), PI: Pavan Turaga (ASU), Co-PI: Suren Jayasuriya (30% share), Intel Corporation, 2018 - 2021

[G1] National Science Foundation: "Exploring Epistemologies where Engineering Meets Art", $197,698 (my share: $98,849), PI: Suren Jayasuriya (50% share), Co-PI: Nadia Kellam (ASU), National Science Foundation EEC, 2018-2020

Internal Grants from ASU

[IG9] ASU SenSIP Center in collaboration with Raytheon: "SenSIP Project: Efficient Machine Learning Algorithms for Surveillance Systems ", ASU SenSIP Center, $31,500 (my share: $22,050), PI: Jayasuriya (70% share), Co-PI: Andreas Spanias (ASU), 2022 - current

[IG8] ASU SenSIP Center in collaboration with Qualcomm: "SenSIP Project-Reconfigurable Image Sensing for Embedded Computer Vision", $60,085, (my share: $42,059), PI: Jayasuriya (70% share), Co-PI: Andreas Spanias (ASU), 2020 - current

Internal Grants from ASU (continued)

[IG7] ASU SenSIP Center in collaboration with Alphacore, Inc.: "SenSIP Project: Adaptive Spatio-temporal Sampling for High Frame Rate Cameras", $48,257 (my share: $33,780), PI: Jayasuriya (70% share), Co-PI: Andreas Spanias (ASU), 2020 - current

[IG6] ASU SenSIP Center in collaboration with Alphacore Inc.: "SenSIP Project - Infrared Imaging in Harsh Environments for UAVs", $56,500 (my share: $39,550), PI: Suren Jayasuriya (70% share), Co-PI: Andreas Spanias (ASU), 2018-2020

[IG5] ASU Seize the Moment Seed Grant: "AI-mediated Refugee Conversations", $4,994 (my share: $1,648) PI: Nicholas Pilarski (ASU), Co-PI Suren Jayasuriya, Sarah Bassett (ASU), Fall 2022 – Spring 2023

[IG4] ASU Herberger Research Initiative: "Discovering the Sensorimotor Physics of the Violin through Analysis with Computational Photography and Perturbation by Novel Digital-Physical Prototyping", $4,500, PI: Seth Thorn (ASU), Co-PI Suren Jayasuriya, Byron Lahey (ASU), 2019 - 2020

[IG3] ASU Herberger Research Initiative: "Lensless Cameras using Woven Fabric for Wearables and Lifelogging", $10,000 (my share: $2500), PI: Suren Jayasuriya, Co-PIs: Jennifer Blain Christen (ASU), Erika Hanson (ASU), Pavan Turaga (ASU), 2019 - 2020

[IG2] ASU Fulton Schools of Engineering: "Non-line-of-sight (NLOS) Imaging and Reconstruction using Light Transport", Total: $40,000, PI Suren Jayasuriya (100%), ASU FSE seed grant, 2018-2019

[IG1] ASU Herberger Research Initiative and Fulton Schools of Engineering: "Light and Sound Transport Tensors for Experiential Media Systems", Total: $40,000 (my share: $10,000), PI Suren Jayasuriya (25%), Co-PIs: Sha Xin Wei (ASU), David Tineapple (ASU), Visar Berisha (ASU) , 2018-2019

Presentations

2024   Invited Talk, Nara Institute of Science and Technology, "Towards Computational Acoustic Cameras: Neural Deconvolution and Rendering for Synthetic Aperture Sonar"

Invited Talk, Chiba University, "Towards Computational Acoustic Cameras: Neural Deconvolution and Rendering for Synthetic Aperture Sonar"

Invited Talk, University of California, Irvine, "Towards Computational Acoustic Cameras: Neural Deconvolution and Rendering for Synthetic Aperture Sonar"

Seminar, Cornell University, "Towards Computational Acoustic Cameras: Neural Deconvolution and Rendering for Synthetic Aperture Sonar"

Invited Talk, Mitsubishi Electric Research Laboratory, "Towards Computational Acoustic Cameras: Neural Deconvolution and Rendering for Synthetic Aperture Sonar"

Invited Talk, Boston University, "Towards Computational Acoustic Cameras: Neural Deconvolution and Rendering for Synthetic Aperture Sonar"

Invited Talk, University of Wisconsin, Madison, "Towards Computational Acoustic Cameras: Neural Deconvolution and Rendering for Synthetic Aperture Sonar"

Presentations (continued)

Invited Talk, ShanghaiTech University, "Towards Computational Acoustic Cameras: Neural Deconvolution and Rendering for Synthetic Aperture Sonar"

Invited Talk, The Chinese University of Hong Kong, "Towards Computational Acoustic Cameras: Neural Deconvolution and Rendering for Synthetic Aperture Sonar"

Invited Talk, University of California, Berkeley, "Towards Acoustic Cameras: Neural Deconvolution and Rendering for Synthetic Aperture Sonar"

Invited Talk, University of Florida, February 2024 "Towards Acoustic Cameras: Neural Deconvolution and Rendering for Synthetic Aperture Sonar"

Invited Talk, UC San Diego, February 2024 "Towards Acoustic Cameras: Neural Deconvolution and Rendering for Synthetic Aperture Sonar"

Invited Talk, Electronic Imaging, January 2024 "Neural Deconvolution and Rendering for Synthetic Aperture Sonar"

2023   Colloquium, Texas Tech University, November2023, "Visual Computing and STEAM Education"

Technical Symposium, Raytheon, June 2023, "Neural Volumetric Reconstruction for Coherent Synthetic Aperture Sonar"

2022   Invited Talk, Washington University in St. Louis, November 2022, "Implicit Neural Representations for 4D-CT and Synthetic Aperture Sonar"

Colloquium, St. Louis University, November 2022, "Synchronized Projector-Camera Systems for Light Transport Probing"

Talk, Microchip, May 2022 "Towards Software-Defined Imaging and TinyML: Building Systems for Energy-efficient Computer Vision with Hardware-Software Co-Design"

Seminar, Penn State University, March 2022 "Neural Field Representations for Synthetic Aperture Sonar Deconvolution Deconvolution"

Invited Talk, Workshop on Applications of Computational Imaging, "Implicit Neural Representations for 4D CT and Synthetic Aperture Sonar"

2021   Seminar, Carnegie Mellon University, October 2021, "Dynamic Light Transport Acquisition using a Flying-Spot Projector"

Invited Talk, OSA Imaging and Applied Congress,"Disparity-based Light Transport Probing Using a Synchronized Projector-Camera System"

2020   Invited Talk, TinyML Organization, September 2020 "Towards Software-Defined Imaging: Adaptive Video Subsampling for Energy-Efficient Object Tracking"

Presentations (continued)

2019 Invited Talk, Department of Computer Science, Lousiana State University,"Projector-Camera Systems for Light Transport Estimation and NLOS Imaging"

Invited Talk, Adobe Research, San Jose, California, August 2019, "Synchronized Projector-Camera Systems for Light Transport Estimation"

Seminar, Department of Acoustics, Pennsylvania State University, August 2019, "Light Transport for Computer Vision and Machine Learning"

Invited Talk, Department of Computer Science, University of Massachusetts, Amherst, July 2019 "Light Transport Estimation using Synchronized Projector-Camera Systems"

Seminar, Qualcomm Corporation, Santa Clara, April 2019 "Computational Sensors for Energy-efficient Computer Vision"

Seminar, Raytheon Corporation, Tucson, April 2019 "Light Transport for Imaging through Scattering Media and Non-Line-of-Sight Imaging"

2018 Colloquium, Department of Electrical and Computer Engineering, University of Florida, December 2018, "Light Transport for Computer Vision and Machine Learning"

Seminar, Applied Research Laboratory, Pennsylvania State University, December 2018, "Light Transport for Computer Vision and Machine Learning"

Computer Vision and Image Media Conference, Sendai Japan, November 2018, "Designing New Computational Cameras and Projectors for Physics-based Imaging and Vision"

Colloquium, Nara Institute of Science and Technology (NAIST) & Osaka University, July 2018, "Designing New Computational Cameras and Projectors for Physics-based Imaging and Vision"

Graphics/Vision Seminar, Cornell University, March 2018, "Acquiring and Characterizing Plane-to-Ray Indirect Light Transport using a Synchronized Projector-Camera System"

SenSIP Seminar, Arizona State University, January 2018, "Energy-efficient Computer Vision using Hardware-Software Co-Design"

————————————–Presentations Prior to ASU————————————-

2017 Seminar, Applied Research Laboratory, Pennsylvania State University, September 2017, "Inverse Imaging Problems using Deep Learning"

Colloquium, School of Arts, Media + Engineering, Arizona State University, April 2017, "Building Intelligent Cameras for the Future"

University of Pittsburgh Department of Statistics Colloquium, March 2017,"Deep Learning for Image Analysis and Synthesis"

Presentations (continued)

University of Pittsburgh Undergraduate Mathematics Seminar, January 2017, "Deep Learning in Artificial Intelligence", Tutorial

2016   Energy and Information Systems Seminar, Carnegie Mellon University, May 2016, "Plenoptic Imaging and Vision using Angle Sensitive Pixels"

Pennsylvania State University, Deep Learning Workshop "A Gentle Introduction to Deep Learning", Co-hosted with Kuldeep Kulkarni (ASU)

2013   DARPA presentation on software-defined radios including electronics demonstration, October 2013

2012   Joint AMS-MAA Mathematics Meetings, Boston, January 4-7, 2012, Invited for a 15 minute presentation at the AMS Session on Undergraduate Research, *"Finite-Dimensional Frame Theory over Arbitrary Fields"*

Teaching at ASU

Spring 2024   **AME 400/598 Minds and Machines** Undergraduate/graduate course on artificial intelligence and philosophy of mind/cognitive science created by Dr. Jayasuriya. In-person section with 31 students enrolled (evaluation scores: 4.2/5.0).

Fall 2023   **ASU 101-EEE The ASU Experience**, Freshman seminar course that introduces ASU and the field of electrical engineering. Two sections with enrollment of 16 students (evaluation score of 4.56/5.00) and 19 students (evaluation score of 4.73/5.00) respectively.

EEE 515 Machine Vision and Pattern Recognition, Graduate course on computer vision redesigned by Dr. Jayasuriya, Two sections: in-person (40 students, evaluation score of 4.50/5.00) and online (17 students, evaluation score of 4.41/5.00).

Spring 2023   **AME 494 Minds and Machines** Undergraduate/graduate course on artificial intelligence and philosophy of mind/cognitive science created by Dr. Jayasuriya. Online section with 28 students enrolled (evaluation score of 4.6/5.00).

AME 494 Reading the Algorithm Undergraduate course on algorithmic culture with readings in science fiction literature, co-designed by Dr. Jayasuriya and Dr. Ed Finn. Online section with 32 students enrolled (evaluation score of 4.5/5.0).

EEE 203 Signals and Systems I Undergraduate required course in signals and systems. One in-person section with 66 students (evaluation score of 4.61/5.00).

Fall 2022   **EEE 598 Remote Sensing and Synthetic Aperture Imaging** Graduate course on special topics related to long-range imaging, remote sensing, and synthetic aperture radar, sonar, and lightfields. In-person section with 28 students enrolled (evaluation score of 4.84/5.00).

         AME 494/598 Reading the Algorithm Undergraduate/graduate course on algorithmic culture with readings in science fiction literature, co-designed by Dr. Jayasuriya and Dr. Ed Finn. In-person section with 9 students enrolled (evaluation score of 4.8/5.0).

         ASU 101-EEE The ASU Experience Freshman seminar course that introduces ASU and the field of electrical engineering. Two in-person sections with enrollment of 19 students (evaluation score of 4.68/5.00) and 19 students (evaluation score of 4.91/5.00) respectively.

Spring 2022   **AME 494/598 Minds and Machines** Undergraduate/graduate course on artificial intelligence and philosophy of mind/cognitive science created by Dr. Jayasuriya. One online section (35 students, evaluation score of 4.65/5.00) and one in-person section (15 students, evaluation score of 5.0/5.0).

Fall 2021   **EEE 598 Physics-based Computer Vision** Graduate course in computational imaging and photography created by Dr. Jayasuriya from scratch. Hybrid section with 14 students in-person (evaluation score of 4.91/5.00).

Spring 2021   **AME/EEE 515 Machine Vision and Pattern Recognition** Graduate course in computer vision taught by Dr. Jayasuriya. In-person section with 36 total students enrolled (evaluation score of 4.76/5.00).

Fall 2020   **AME 130 Prototyping Dreams** Required undergraduate course on media arts, prototyping, and digital literacy skills co-taught with Dr. Ed Finn. In-person section with 97 students enrolled (evaluation score of 4.6/5.0).

         EEE 202 Circuits I Required undergraduate course on linear circuit analysis. In person section with 28 students enrolled (evaluation score of 4.64/5.00).

Spring 2020   **AME 494/598 Minds and Machines** Undergraduate/graduate course on artificial intelligence and philosophy of mind/cognitive science created by Dr. Jayasuriya. In-person section with total 40 students enrolled (evaluation score of 4.71/5.00).

         EEE 598 Physics-based Computer Vision Graduate course in computational imaging and photography created by Dr. Jayasuriya from scratch. In-person section with 29 students enrolled (evaluation score of 4.71/5.00).

Fall 2019   **AME/EEE 598 Computational Image Understanding and Pattern Analysis** Graduate course in computer vision taught by Dr. Jayasuriya. In-person section with 52 total students enrolled (evaluation score of 4.7/5.0).

Spring 2019   **AME 520 Understanding Activity** Required graduate course in AME in movement and computing including motion capture and media synthesis taught by Dr. Jayasuriya. In-person section with 11 students enrolled (evaluation score of 4.67/5.00).

Teaching at ASU (continued)

Fall 2018   **AME 130 Prototyping Dreams** Required undergraduate course on media arts, proto-typing, and digital literacy skills co-taught with Dr. Ed Finn. In-person section with 80 students enrolled (evaluation score of 4.3/5.0).

EEE 202 Circuits I Required undergraduate course on linear circuit analysis. In person section with 45 students enrolled (evaluation score of 4.58/5.00).

Spring 2018   **AME/EEE 598 Computational Cameras, Lighting and Displays**Graduate course in computational imaging and photography created by Dr. Jayasuriya from scratch. In-person section with 31 students enrolled (evaluation score of 4.48/5.00).

Teaching Prior to ASU

Spring 2016   **ECE 4250 Digital Signal and Image Processing** Cornell University, co-taught with Amandy Nwana

Spring 2015   **ECE 2100 Introduction to Circuits**, Teaching assistant, (Outstanding PhD TA Award)

Fall 2010   **STAT 1000 Applied Statistical Methods Honors**, University of Pittsburgh, Teaching Assistant

Undergraduate Research and K-12 Outreach

2020-2025   **Principal Investigator**, ImageSTEAM program, Middle school teacher professional development summer workshops for visual computing, www.imagesteam.org

2020-2023   **NSF REU Site Director**, PI for NSF Research Experiences for Undergrads site in Computational Imaging and Mixed-Reality for Visual Media Creation and Visualization

2018-2023   **Instructor**, ASU Digital Culture Summer Institute (DCSI), *How Can Computers Think?*, June 2018-2023

2021   **Instructor**, ASU Girls who Code Camp: F2021

2019   **Instructor**, ASU Young Engineers Shape the World, *Computer Vision and AI*, workshop in Fall 2019, *Designing Digital-Physical Instruments*, 2 workshops in Spring 2019

————————————–Education/Outreach Prior to ASU————————————–

2015   **Volunteer**, Lego Robotics outreach at Cayuga Heights Elementary School, Ithaca, NY Fall 2015

2011-2012   **Tutor**, Math Assistance Center, University of Pittsburgh, September 2011 - May 2012

Students Mentored

Graduated PhD Students	**Dr. Albert Reed**, (Winner of the ASU Engineering Dean's Dissertation Award), now at Kitware, Inc.
	Dr. Jianwei Zhang (co-advised with Dr. Visar Berisha), now at Oregon Health State University
	Dr. Odrika Iqbal (co-advised with Dr. Andreas Spanias), now at Intel
	Dr. Madeleine Jennings (co-advised with Dr. Nadia Kellam)
	Dr. Sreenithy Chandran, (Winner of the Palais Outstanding Doctoral Student Award from ECEE in 2023-2024), now at Samsung Research
Current PhD Students	Joshua Rego
	Gregory Vetaw
	Ripon Saha
	Lein de Leon Yong
	Omkar Vengurlekar
	Jennifer Stanley
	Yujun (Katherine) Chen
Graduated MS Students	Joshua Rego (graduated Fall 2020, continued as PhD student)
	John Janiczek (co-advised with Dr. Gautam Dasarathy, graduated Spring 2020)
	Sreenithy Chandran (graduated Spring 2019, continued as PhD student)
	Cameron Whyte (co-advised with Dr. Malena Espanol), now at Circle K.
	Karthik Kulkarni (co-advised with Dr. Ariane Middel), now at Dataseers, Inc.
	Victor Torres, now at Microchip
	Olivia Christie, now at Raytheon
Current MS Students	Aaron Augustine
	Sarah Bearman
Barrett Honors Thesis Students	Cameron Whyte, graduated Spring 2020
	Michael Li, graduated Spring 2021
	Dominique Dredd, graduated Spring 2023
	Vinesh Mani, graduated Spring 2024
Undergraduate Research Students	**ASU FURI program:** Paul Nathan, Summer 2018 – Fall 2018, Olivia Christie - Fall 2019 - Spring 2020, Celine Cheung - Summer 2019, Ryan Widjaja – Summer 2020 - Fall 2020
	SenSIP REU students: Divya Mohan (Summer 2018), Joshua Martin (Summer 2019), Olivia Christie (Summer 2019)
	NSF REU students: Olivia Christie (Fall 2020 - Spring 2021), Dominique Dredd (Spring 2021-Fall 2022), Michael Li (Fall 2020-Spring 2021), Brooklynn Bluto (Spring 2024 - present), Miah Miner (Spring 2024 - present), Gracelynn Kastler (Summer 2024 - present)

Students Mentored (continued)

High School Interns	Catherine Wong (Basis Chandler High School), Fall 2018-Spring 2019. Project: AI-generated Artwork, accepted to MIT for undergraduate
	Shreya Sreekantham (Basis Chandler High School)
	Linda Hu (Basis Chandler High School)
	Quinto Pentland

Student Awards

Albert Reed: NDSEG Fellowship 2020 - 2023, NSF Graduate Research Fellowship Honorable Mention 2020, ASU Fulton Schools of Engineering Dean's Dissertation Award 2023

Madeleine Jennings: NSF Graduate Research Fellowship 2019 - 2024

Greg Vetaw: NSF Graduate Research Fellowship 2016 - 2021, ASU Fulton Schools of Engineering Dean's Fellowship 2019 - 2021, DOD SMART Scholarship 2023 - 2025

Sreenithy Chandran: NAIST Summer Fellowship - Summer 2019, ASU FSE Masters Opportunity in Research (MORE) - Spring 2019, Palais Outstanding PhD Student Award in ECEE 2023-2024

Victor Torres: Fulbright-Garcia Robles Scholarship 2020 - 2022

Olivia Christie: GORE Sponsorship Award for undergrad research accomplishments - Spring 2020

Lein de Leon Yong: Fulbright Scholarship, 2021 - 2023

Service

Reviewing	Paper reviewer for the following venues: IEEE Conference on Computer Vision and Pattern Recognition (CVPR), IEEE International Conference on Computer Vision (ICCV), European Conference on Computer Vision (ECCV), SIGGRAPH, IEEE International Conf. on Computational Photography (ICCP), IEEE Trans. on Computational Imaging (TCI), IEEE Trans. on Visualization and Computer Graphics (TVCG), IEEE Trans. on Image Processing (TIP), Intl. Conf. on Pattern Recognition (ICPR), Applied Optics, Optics Letters/Express.
	Served on NSF grant review Panels in Spring 2018 and Spring 2020, NEH grant panel in Spring 2019.
Professional Service	Program Committee for CVPR Workshop on Computational Cameras and Displays (CCD) 2018
	Social Media chair for IEEE ICCP 2018 and 2020,
	Finance chair for IEEE ICCP 2021, 2022, and 2024

Publications chair for ACM TEI 2019

President of the IEEE Signal Processing and Communications Society - Phoenix Chapter (2018 - 2022)

Member of the TinyML Phoenix Chapter Steering Committee (2020 - present)

University Service   Herberger Research Council (2019 - 2022)

Co-Chair for Faculty Search in Expressive Robotics between AME and SEMTE (Fall 2018 - Spring 2019)

AME MS and PhD Admissions committee (2018 - present)

ECEE Grad Committee for Robotics and Autonomous Systems (RAS) program

ECEE Grad Committee for Data Science, Analytics and Engineering (DSAE) program

ECEE graduate awards committee (2023 - 2024)

Faculty mentor for ASU Graduate College Fellowship Mentoring program (2019 - 2022)

ASU FURI Faculty Review Committee (Spring 2020)