KEVIN VORA

| +1 (480)-669-2021 | kvora1@asu.edu | in ⭕

Summary and Areas of Interest

Graduate student at ASU with research experience in AI-robotics, machine learning and NLP, looking for a research opportunity.

Education

PhD in Computer Science (AI-Robotics)	*Aug 2021 (ongoing)*
Arizona State University, Tempe, Az.	CGPA = 3.83 /4
MS in Robotics & Autonomous Systems (AI)	*Aug 2019 - Aug 2021*
Arizona State University, Tempe, Az.	CGPA = 3.63/4
Bachelor of Technology, Information Technology	*Aug 2015 - May 2019*
Nirma University, Ahmedabad, Gujarat	CGPA = 8.25/10

Skills

<u>Intelligent Robotics</u>: Python (NumPy, Pandas, Matplotlib, Keras, Pytorch, Tensorflow, SciPy, Scikit-Learn, Gym), ROS, R, V-REP

<u>Programming Language</u>: Python, C, C++, Matlab, Java, HTML & CSS

<u>Certificates</u>: Machine Learning A-Z™ (Udemy), 6th Sense Robotics, Big Data analytics with Hadoop and Spark framework

---

Work Experience

Graduate Research Assistant | Knowledge Exchange for Resilience, ASU
- Full stack developer for Knowledge Alliance Tool.
- Conduct Responsive Research by analysing housing, heat, census, and many other datasets.
- Develop pipeline for data collection, data pre-processing and data analytics for interactive dashboards.

Research AIDE (Data Analytics) | Knowledge Exchange for Resilience, ASU   *Mar 2020 - Aug 2021*
- Performing data analytics related research for projects funded by NSF rapid grant and a few others.
- Developing semantic search platform for Non-Profit org and ASU researchers using contextual word embeddings.

Research Intern | IIT Gandhinagar   *May 2018 - Jul 2018*
- Developed creative virtual reality games for intelligent stroke rehabilitation of patients. Created regression model for polhemus fastrak and cyber glove to interact with virtual gaming environment.
- Communicated with the guide and research team to improve the system through their feedback and managed to build an Intelligent system that helps in hand rehabilitation.

Projects

"Robo-Sparky": A penalty kick Agent 🔗   *Apr 2020*
- Designed a simulation environment consisting of a football field, a player, a football and a goalkeeper.
- Implemented reinforcement learning for a multi-agent system where player learns to kick and goalkeeper learns to block [discrete action space].
- Achieved continuous actions space learning for player, using evolutionary strategy: "Harmony Search".

Learning Complex Behaviour from Simple ones (Master's Thesis)   *July 2021*
- Learned simple behaviours which when combined can enable the agent to achieve complex task.
- Demonstrated 10% faster convergence on MuJuCo & Open-AI gym environments with my modular architecture.

Inception in Reinforcement Learning (RL)   *Jan 2022*
- Developed a Model based RL methodology that learns from abstract model of real environment.
- Demonstrated 25% improvement in convergence in open-AI gym environments and experimenting in MuJuCo now.

Publications

- *"Emotion Recognition from sensory and bio-signals: A Survey"* 🔗 [Amongst Top 3 Most downloaded chapters of the book]
- *"Necessary precautions for cognitive tutoring system"* 🔗
- *"A Patchwork of Pandemics: Understanding the Spatial Performance of Predictive Models of State Decision making and COVID-19 Patterns"* 🔗
- *"Reward Adaptation via Q-Manipulation"* (ICLR 2024, under review)