Aditi A. Mavalankar

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EDUCATION

Ph.D., Computer Science and Engineering, Artificial Intelligence *Expected: June 2023*

University of California, San Diego (UC San Diego), USA.

B.Tech (Honors), Computer Science and Engineering *August 2016*

International Institute of Information Technology (IIIT), Hyderabad, India.

RECENT RESEARCH AND INDUSTRIAL EXPERIENCE

Graduate Student Researcher, UC San Diego *Ongoing*

Working with Prof. Sicun Gao on modeling inverse dynamics of continuous control environments in OpenAI Gym for enabling sample-efficient reinforcement learning in navigation tasks.

Applied Scientist Intern, Amazon Lab126, Sunnyvale *June 2018 - September 2018*

Worked on a confidential project in the Computer Vision team.

Software Development Engineering Intern, Amazon Lab126, Sunnyvale *June 2017 - September 2017*

Developed from scratch the computer vision software pipeline that involved studying and implementing algorithms on human detection, tracking and depth-estimation on real-time video input. (Confidential project)

Research Assistant, UC San Diego *September 2016 - June 2018*

Mentored 10 groups of undergraduate students in their research projects in different areas of Computer Science as a part of the Early Research Scholars Program funded by the NSF, and coordinated and managed by Prof. Christine Alvarado. Website: https://ersp.ucsd.edu

TEACHING EXPERIENCE

UC San Diego : Introduction to CS Research (Prof. Christine Alvarado) *Ongoing*

UC San Diego : Research Methods (Prof. Christine Alvarado) *September 2016 - December 2016*

IIIT Hyderabad : Artificial Intelligence, Mathematics II-III *August 2014 - May 2016*

PUBLICATIONS AND PRESENTATIONS

A. Mavalankar, T. Kelkar, C. Venkatesh Generation of Quizzes and Solutions based on Ontologies - a Case for a Music Problem Generator. *The 7th IEEE International Conference on Technology for Education, 2015*

A. Mavalankar, S. Dagar, K. Vemuri Decoding (un)known opponent's game play, a real-life badminton eye-tracking study. *EuroAsianPacific Joint Conference on Cognitive Science, 2015*

C. Venkatesh, G. Ahuja, **A. Mavalankar** How does a program run? A visual model based on Annotating Abstract Syntax Trees. *4th IEEE Conference on Learning and Teaching in Computing and Engineering, 2016*

N.S. Uppara, **A. Mavalankar**, K. Vemuri Eye tracking in naturalistic badminton play: comparing visual gaze pattern strategy in world-rank and amateur player. *The 7th Workshop on Pervasive Eye Tracking and Mobile Eye-Based Interaction, 2018*

RECENT PROJECTS

Modeling inverse dynamics for continuous control *Ongoing*

Monocular depth estimation in the autonomous driving scenario *2018*

Analysis of change in political social networks over time *2017*

Recommendation system for Amazon products (Python) *2017*

SKILLS

Programming languages: Python, C, C++, MATLAB, Javascript

Deep learning toolkits: PyTorch, Tensorflow, MXNet, Keras

Other toolkits/libraries: OpenAI Gym, Mujoco, OpenCV, Caffe, NumPy

RELEVANT COURSEWORK

Probabilistic Learning and Reasoning, Automated Reasoning in AI, Recent Advances in Computer Vision, Recommender Systems and Social Networks, Data Analytics using Spark, Artificial Intelligence, Machine Learning, Information Retrieval and Extraction, Statistical Methods in AI, Algorithms, Software Engineering, Data Structures

SELECTED ACHIEVEMENTS AND AWARDS

Masters Award for Excellence in Service/Leadership at UC San Diego *2018*

Research Award at IIIT Hyderabad *2015*

Dean's Award for Academic Excellence at IIIT Hyderabad *2012-2016*