Priyam Parashar

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Born: July 8, 1991 – India

AREAS OF INTEREST

Artificial Intelligence • Cognitive Robotics • Human Robot Interaction • Mobile Robots

EDUCATION

2016-Present PhD Student in CSE – Robotics,
University of California, San Diego

2015-2016 PhD Student in Robotics,
Georgia Institute of Technology
CGPA: 3.50 / 4.00

2015 MSc in Robotics,
Carnegie Mellon University
CGPA: 3.95 / 4.00

2013 BTech with Honours in Electronics and Communication,
International Institute of Information Technology, Hyderabad
CGPA: 8.55 / 10.00

RESEARCH EXPERIENCE

Summer 2017 Research Intern under Dr A. Cosgun and Dr A. Nakhaei,
Honda Research Institute, USA

- Conducting user study to understand driving patterns in ambiguous, partially occluded scenarios
- Investigating combination of learning from demonstration and domain knowledge to train a self-driving system
- Implemented user study platform on top of Gazebo using C++

2016-2017 Graduate Research Assistant under Dr Henrik Christensen and Dr Ashok Goel,
University of California, San Diego; Georgia Institute of Technology

- Investigating long term autonomy of robots in the context of navigation and human-robot interaction

- Investigating methodologies to combine knowledge-based techniques with data-based techniques for a more flexible AI architecture for collaborative robots

2013-2014 Graduate Research Assistant under Dr Reid Simmons,
Carnegie Mellon University
- Designed pipeline for analyzing logged data from mobile robots to model and predict travel time depending upon environmental and time-based features
- Learning was geared towards making explanations and diagnostic efforts easier by using Decision Tree based rule-extraction from the data
- Verified the pipeline using real-world logged data from CoBot
- Authored a paper outlining the approach and results of the same

2014 Robotics Software Intern supervised by Dr Frederik Heger,
Vecna Technologies, Inc.
- Programmed the pipeline conceived during the GRA at Carnegie Mellon University for the planning stack of QC Bot in C++
- Refined design using real-time data from in-house robot runs, presented the approach and results as part of final week presentations, which was generally praised

2013 Undergraduate Research Assistant under Dr Madhava Krishna,
IIIT-Hyderabad
- Facilitated conception of FPGA-powered omni-directional robots for promoting robotics projects within the university, as a part of team of 4
- Programmed FPGA to implement various path-planning algorithms, leveraging the parallel processing that the platform provides

2011 Research Intern under Dr Sudhir Madhav Rao
IIIT-Hyderabad
- Designed the complete course curriculum for lab-based course "Digital Signal Processing Lab", which was introduced next semester
- Verified experiments on Texas Instrument's TMS320C6713 DSP Starter Kit and catalogued the proceedings as a lab manual

TEACHING EXPERIENCE

2016 Teaching Assistant for *Introduction to Robotics and Perception*
Georgia Institute of Technology
- Conducted tutorial sessions to help with lab-based hands-on experiments as well as lecture based conceptual questions

2012 Teaching Assistant for *Electronics Workshop - II*
IIIT-Hyderabad
- Designed new weekly problem statements for teaching curriculum
- Supervised lab sessions and tutored the undergraduate students involved

2011 Teaching Assistant for *Embedded Hardware Design*
IIIT-Hyderabad
- Supervised lab sessions and tutored undergraduates on concepts of micro-controllers and FPGA

PUBLICATIONS

2015 **Parashar, Priyam**, Robert Fisher, Reid Simmons, Manuela Veloso, and Joydeep Biswas. "Learning Context-Based Outcomes for Mobile Robots in Unstructured Indoor Environments." In 2015 IEEE 14th *International Conference on Machine Learning and Applications (ICMLA)*, pp. 703-706. IEEE, 2015

2017 **Parashar, Priyam**, Sheneman, B and Goel, A.G. "Adaptive Agents in Minecraft: A Hybrid Paradigm for Combining Domain Knowledge with Reinforcement Learning" In *Proceedings of the Adaptive Learning Agents workshop (at AAMAS), Sao Paulo, Brazil, May 2017*

HONORS AND AWARDS

2017 Research paper chosen as the 'Visionary Paper' by Adaptive Learning Agents Workshop at AAMAS 2017, to be published under Springer's Lecture Notes in Artificial Intelligence (LNAI) Hot Topics series

2016 Georgia Robotics Fellowship for Women and Underrepresented Minorities

2010-2012 Enlisted in *Dean's List of Academic Excellence* at IIIT-Hyderabad, India

2011 Awarded special mention and credits by the institute, for excellent work while developing the course curriculum for "Digital Signal Processing Lab"