Ishan Durugkar

ishand@cs.utexas.edu https://www.cs.utexas.edu/~ishand (919) 987-5230

Research Experience

Learning Agents Research Group, University of Texas at Austin:

- Reinforcement Learning
- Adversarial Imitation Learning techniques
- Multiagent Reinforcement Learning
- Robotics and Sim-to-Real Transfer
- Optimization

Autonomous Learning Lab, UMass Amherst:

- GANs using multiple Discriminators.
- Off-policy policy evaluation for non-stationary environments.
- Policy Gradient methods for searching on large graphs.
- Deep Reinforcement Learning techniques building towards hierarchical behaviors in intelligent agents.
- Deep Generative Models for Spectroscopic Analysis.
- Manifold Learning using graph construction.

OAT Research, Maharashtra Institute of Technology, Pune, India:

- Swarm Optimization techniques inspired by human social behavior.

Robotics, Maharashtra Institute of Technology, Pune, India:

- Development of inertial navigational algorithms for robotic locomotion in low feedback situations

Education

Ph.D., University of Texas at Austin (ongoing). Advisor: Dr. Peter Stone
MS, University of Massachusetts, Amherst GPA: 4.0
B.Engg., University of Pune, India

Some Publications

- An Imitation from Observation Approach to Sim-to-Real Transfer: Desai S.*, Durugkar I.*, Karnan H.*, Warnell G., Hanna J., Stone P.; Accepted at NeurIPS 2020
- Balancing Individual Preferences and Shared Objectives in Multiagent Reinforcement Learning: Durugkar I.*, Liebman E.*, Stone P.; IJCAI 2020
- Reducing Sampling Error in Batch Temporal Difference Learning: Pavse B., Durugkar I., Hanna J., Stone P.; ICML 2020
- Generative Multi-Adversarial Networks: Durugkar I., Gemp I., Mahadevan S.; ICLR 2017
- Predictive Off-Policy Policy Evaluation for Nonstationary Decision Problems: Thomas P., Ghavamzadeh M., Theocharous G., Durugkar I., IAAI-17

Other Experience

- **Microsoft Research,** Research Intern May 2018 – August 2018
- **Amazon Comixology,** Software Development Intern May 2015 – August 2015
- **Microsoft**, Software Development November 2013 – July 2014
- **Tata Research**, Research Intern, Pune July 2012 – April 2013

Languages and Tools

- Python, C, C++, PyTorch, Tensorflow, Theano, Lasagne, ElasticSearch

Coursework

Reinforcement Learning, Deep Learning, Probabilistic Graphical Networks, Machine Learning, Advanced Robotics