

Research Experience

Learning Agents Research Group, University of Texas at Austin:

- Intrinsic Motivation
- Deep Reinforcement Learning

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 and Coursework

Ph.D., University of Texas at Austin (ongoing). Advisor: Peter Stone

MS, University of Massachusetts, Amherst

GPA: 4.0

- Machine Learning, Deep Learning, Advanced Algorithms, Reinforcement Learning, AI, Information Retrieval

B.Engg., University of Pune, India

Representative Publications

- Generative Multi-Adversarial Networks: Durugkar I., Gemp I., Mahadevan S.; ArXiv preprint arXiv:1611.01673
- Predictive Off-Policy Policy Evaluation for Nonstationary Decision Problems: Thomas P., Ghavamzadeh M., Theodorou G., Durugkar I., IAAI-17
- Deep Reinforcement Learning with Macros: Durugkar I., Rosenbaum C., Dernbach S., Mahadevan S.; ArXiv preprint arXiv:1606.04615

Personal Projects and Achievements

- Deep Learning Projects using Convolutional nets (Diabetic Retinopathy Detection, DQN) and Recurrent nets (Off-policy policy evaluation)
- 5th Place at ACM ICPC in the North Eastern North American Region, 2014
- Undergraduate Robotics experience for 3 years
- Virtual Feedback Loop for Autonomous Robotic Control
- Represented India in International Robotics Competition (Robocon), 2010, 2012

Other Experience

- **UMass Alumni Association**, Data Science Assistant August 2015 – May 2016
- **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, Ruby, Java, Matlab, SQL, Tensorflow, Theano, Lasagne, ElasticSearch