

# Nirbhay Modhe

CONTACT	PhD Candidate, advised by Prof. Dhruv Batra College of Computing, Georgia Tech	email: nirbhayjm.github.io
EDUCATION	<b>Georgia Tech</b> , PhD in Computer Science <b>IIT Kanpur</b> , B. Tech in Computer Science, CGPA: 9.7/10	2017-present 2013-2017
PUBLICATIONS	<b>Nirbhay Modhe</b> , Harish Kamath, Dhruv Batra, Ashwin Kalyan. Model-Advantage Optimization for Model-Based Reinforcement Learning <i>pre-print, under review</i> ( <a href="#">arXiv</a> ↗ ) <b>Nirbhay Modhe*</b> , Harish Kamath*, Dhruv Batra, Ashwin Kalyan. Bridging Worlds in Reinforcement Learning with Model-Advantage <i>4th Lifelong Machine Learning Workshop at ICML 2020</i> ( <a href="#">PDF</a> ↗ ) <b>Nirbhay Modhe</b> , Prithvijit Chattopadhyay, Mohit Sharma, Abhishek Das, Devi Parikh, Dhruv Batra, Ramakrishna Vedantam. IR-VIC: Unsupervised Discovery of Sub-goals for Transfer in RL <i>International Joint Conference on Artificial Intelligence, Yokohoma, Japan, 2020</i> ( <a href="#">IJCAI20</a> ↗ , <a href="#">arXiv</a> ↗ ) Vikas Jain*, <b>Nirbhay Modhe*</b> , Piyush Rai. Scalable Generative Models for Multi-label Learning with Missing Labels. <i>International Conference on Machine Learning (ICML)</i> , 2017 ( <a href="#">pdf</a> ↗ )	
INTERNSHIPS	<b>SRI International</b> , Giedrius Burachas Stochastic Video Prediction for Navigation <ul style="list-style-type: none"><li>Applied disentangled representations for stochastic video prediction in a virtual Unity3D environment and the KITTI dataset.</li></ul> <b>University of Texas at Dallas</b> , Prof. Vincent Ng Event Coreference Resolution <ul style="list-style-type: none"><li>Explored the use of recurrent neural networks for event coreference resolution</li></ul>	Summer 2018  Summer 2016
OPEN SOURCE	<b>VisDial-RL in PyTorch</b> , Prof. Dhruv Batra <a href="#">batra-mlp-lab/visdial-rl</a> ↗ <ul style="list-style-type: none"><li>Lead the open source project for implementing VisDial RL - <i>Learning Cooperative Visual Dialog Agents using Deep Reinforcement Learning</i> by Das and Kottur et. al., 2017, in PyTorch.</li></ul>	July 2018  ( <a href="#">Github</a> ↗ )
TEACHING EXPERIENCE	<b>Teaching Assistant</b> , Deep Learning, Georgia Tech <ul style="list-style-type: none"><li>Served as TA for CS 7643/4803 in Fall 2018 and Fall 2019.</li><li>Gave an introductory lecture on dynamic programming methods for solving MDPs and an introduction to Reinforcement Learning in Fall 2019.</li></ul> <b>Tutor</b> , Fundamentals of Computing (ESC101), IIT Kanpur <ul style="list-style-type: none"><li>Taught in weekly tutorial classes for ESC101 in Fall 2016 and Spring 2017.</li><li>Recorded video lectures in Hindi and partly in English as a part of the course offering to aid students struggling with understanding English.</li></ul>	( <a href="#">RL slides</a> <a href="#">pdf</a> ↗ )  ( <a href="#">YouTube playlist</a> ↗ )
REVIEWING	Served as a reviewer for ECCV 2018, CVPR 2019, ICLR 2019, ICLR 2020, AAAI 2020, NeurIPS 2020, ICML 2021, ICLR 2021, NeurIPS 2021, ICLR 2022.	

**ACADEMIC  
ACCOLADES**

- Received **Academic Excellence Award** twice for outstanding academic performance (awarded to top 7% students in the institute) from 2013-15
- Received an **A\* grade** in 8 courses (awarded to top 1-2% students in a course)
- Secured **All India Rank 414** (among 150,000 students) in JEE Advanced 2013
- Secured **All India Rank 313** (among 5,000,000 students) in JEE Mains 2013

**TECHNICAL  
SKILLS**

Languages : Python, Shell, C, C++, R, Matlab/Octave  
Software & Tools : PyTorch, TensorFlow,  $\text{\LaTeX}$