
















Nirbhay Modhe

CONTACT	PhD Student, advised by Prof. Dhruv Batra College of Computing, Georgia Tech	email: nirbhaym@gatech.edu nirbhayjm.github.io
EDUCATION	Georgia Tech , PhD in Computer Science IIT Kanpur , B. Tech in Computer Science, CGPA: 9.7/10	2017-present 2013-2017
PUBLICATIONS	Vikas Jain*, Nirbhay Modhe* , Piyush Rai. Scalable Generative Models for Multi-label Learning with Missing Labels. <i>International Conference on Machine Learning (ICML)</i> , 2017 Feb 2017	
RESEARCH EXPERIENCE	Georgia Tech , Prof. Dhruv Batra & Prof. Devi Parikh Towards Smarter Q-Bots in Visual Dialog <ul style="list-style-type: none">Explored ways of making the Questioner Bot ask more discriminative questions in the visual dialog task where two agents play a cooperative image-guessing game IIT Kanpur , Prof. Amitabha Mukerjee Reconstructing Unique Inversions for Deep Model of Motion <ul style="list-style-type: none">Extended the Convolutional Chair Generation model by Dosovitsky et. al. for reconstructing poses of a 3 DOF robotic arm.Obtained a labelled dataset of the CRS Robot Arm using 6 cameras and used the proposed CNN to learn the robot image representations. IIT Kanpur , Prof. Raghunath Tewari Probabilistic Polynomial Method in Circuit Complexity <ul style="list-style-type: none">Studied the application of the probabilistic polynomial method by Ryan Williams in the All Pairs Shortest Path and Boolean Orthogonal Detection problem.Proposed the application of this method to solve min-plus matrix multiplication faster by using the tensor product decomposition of the two matrices.	Aug 17' - Nov '17 (video  , pres ) May '15 – August '15 (report ) Dec '15 - April '16 (pres  , report ) May 18' - August '18 May '16 - July '16
INTERNSHIPS	SRI International , Giedrius Burachas Stochastic Video Prediction for Navigation <ul style="list-style-type: none">Applied disentangled representations for stochastic video prediction in a virtual Unity3D environment and the KITTI dataset. University of Texas at Dallas , Prof. Vincent Ng Event Coreference Resolution <ul style="list-style-type: none">Explored the use of recurrent neural networks for event coreference resolution	
TEACHING EXPERIENCE	Fundamentals of Computing , Tutor <ul style="list-style-type: none">Taught in weekly tutorial classes, devised and graded lab exams, supervised weekly lab sessions, for two consecutive semesters. Fundamentals of Computing , Academic Mentor, Counselling Service <ul style="list-style-type: none">Mentored academically deficient students in the course ESC101 (Fundamentals of Computing) through personal tutoring and doubt clearing sessions.	<i>Semester I and II, 2016-17</i> <i>2014-15</i>

COURSE PROJECTS	Generative Image Modelling using DRAW July '16 - November '16 <i>Recent Advances in CV, Prof. Gaurav Sharma</i> (code  , pres  , report ) <ul style="list-style-type: none"> Analysed the generative RNN model “DRAW” by Gregor et. al. by experimenting with the parameters and design choices of the encoder-decoder framework on the MNIST and Street View House Numbers (SVHN) cropped dataset. Implemented and evaluated three new modifications to DRAW which incorporate convolutional features, supervised learning and fully convolutional networks on the MNIST dataset.
	Image Colorization by Patch Inference Jan '16 - April '16 <i>Computer Vision, Prof. Vinay Namboodiri</i> (code  , poster  , report ) <ul style="list-style-type: none"> Implemented and evaluate a novel image colorization model inspired by the idea of “Fast Direct Super-resolution by Simple Functions” by Yang et. al. The model learns to color images by training on the luminance and chrominance values of local patches. Evaluated the model on a set of scene images from the Sun Database.
	Word Sense Disambiguation in Hindi March '15 - April '15 <i>Artificial Intelligence, Prof. Amitabha Mukerjee</i> (code  , poster  , report )
	Perl Compiler Jan '16 - April '16 <i>Compiler Design, Prof. Subhajit Roy</i> (code )
ACADEMIC ACCOLADES	<ul style="list-style-type: none"> 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, C, C++, R, BASH, Perl Software & Tools : TensorFlow, Theano, Caffe, Matlab/GNU Octave, L ^A T _E X, Git
OFFICIAL POSITIONS	Group Leader , Rubik's Cube Hobby Group, IIT Kanpur <i>2015-16</i> <ul style="list-style-type: none"> Held workshops for various puzzles such as the Rubik's Cube, 4x4x4 cube, 5x5x5 cube, 2x2x2, Pyraminx and Megaminx Coordinated all Blindfolded Rubik's Cube Solving projects done by first year students in the summer of 2015
	Event Coordinator , IORC (Indian Open Rubik's Cube) <i>March '15</i> <ul style="list-style-type: none"> Appointed judges for all events as well as invigilated over all of them Acted as a judge for timing individual solves and provided official scrambles for puzzles
	Student Guide at Counselling Service, IIT Kanpur <i>2014-15</i> <ul style="list-style-type: none"> Helped 7 freshmen adjust to campus life on their arrival to campus, provided emotional support and academic guidance to them during their first year