

Vaibhav Gupta

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EDUCATION

Courant, New York University <i>Master of Science in Computer Science; GPA: 3.97/4</i>	New York, USA <i>Sep. 2018 – May 2020</i>
Dhirubhai Ambani Institute of Information and Communication Technology <i>Bachelors of Technology in Computer Science; GPA: 8.0/10</i>	Gujarat, INDIA <i>Aug. 2010 – June 2014</i>

EXPERIENCE

Human and Machine Learning Lab, NYU <i>Assistant Research Scientist</i>	New York, USA <i>Sep. 2019 – Present</i>
<ul style="list-style-type: none">Working with Professor Brenden Lake and his team, with the aim of using Machine Learning and Deep Learning techniques to model how learning takes place in humans. lake-lab.github.io/peopleHave gained significant experience in training and analysing large-scale self-supervised models for computer vision tasks.	
Grab Technologies <i>Senior Software Developer</i>	Washington, USA <i>July 2020 – Present</i>
<ul style="list-style-type: none">Currently building the next generation A/B Testing and Data Analytics Platform to get customer insights.Previously interned with the Ads Team. Built an internal portal where marketers could create campaigns for automatic propagation to multiple Ad Platforms.	
Amazon <i>Software Development Engineer</i>	Bangalore, INDIA <i>July 2014 – August 2017</i>
<ul style="list-style-type: none">Worked on a website product end-to-end, from Frontend UI to Backend Services and data-stores.Later worked with the Social Ads Team on Revenue Optimization and Big Data Analytics.	

PAPERS

Self-Supervised Learning through the Eyes of a Child	Accepted at NeurIPS 2020
<ul style="list-style-type: none">Utilized modern self-supervised deep learning methods and a recent longitudinal, egocentric video dataset recorded from the perspective of several young children, to model cognitive development in human babies.ArXiv Link: 2007.16189 Press Coverage - <i>NewScientist</i>, <i>DigitalTrends</i>	

ACADEMIC PROJECTS

BlackJack RL Agent and Cognitive Models github.com/guptv93/blackjack	Feb 2019 – May 2019
<ul style="list-style-type: none">Developed the optimal strategy for BlackJack using SARSA and Q-Learning reinforcement learning techniques.Used the optimal strategies (and a few other probabilistic heuristics) to model how humans make decisions during BlackJack. For this, actual human data was collected using an online BlackJack simulator.	
Static Prediction of GPU Speed-up	Sept 2019 – Dec 2019
<ul style="list-style-type: none">Modelled the speed-ups achieved by CUDA devices on various benchmark tasks, using only the static features for those tasks and devices. Useful for Job Management Systems (JMS) for GPUs.Associated research paper currently under submission at IPDPS 2021.	

PROGRAMMING SKILLS

Languages: Python, Java, JavaScript, GoLang, CUDA	ML Libraries: PyTorch, NumPy, Scikit-learn, Pandas
Frameworks: Hadoop, Docker, Kubernetes, AWS, Azure	Database: SQL, DynamoDB, Redis, MongoDB

SELECTED COURSEWORK

Machine Learning, Deep Learning, Computer Vision, Maths for CS, GPU, Computational Cognitive Modeling.