# MOHIT SHARMA

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## EDUCATION

**Purdue University**                                             *Aug 2016 - May 2018*
Joint MS in Computer Science/Statistics GPA: 3.73/4.0

**Indian Institute of Technology, Kharagpur**                    *July 2010 - May 2015*
B.Tech and M.Tech (Dual Degree) in Computer Science and Engineering GPA: 8.23/10.0

## COURSES AND SKILLS

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| **Courses** | Adaptive Control and Reinforcement Learning, Deep Learning, Causal Inference, Mathematical Statistics, Stochastic Processes, Computational Optimization, Statistical Machine Learning, Real Analysis, Linear Algebra |
| **Frameworks & Packages** | PyTorch, scikit-learn, Blender, RabbitMQ, Redis, OSM, PostgreSQL, QGIS |
| **Programming Languages** | Python, Julia, PHP, C++, Elixir |

## EXPERIENCE

**Georgia Tech**, *Research Scholar, Prof. Devi Parikh & Prof. Dhruv Batra*        August 2018 - Present

○ Working on unsupervised method for task agnostic decision discovery of 'Decision States' using Intrinsic Control(preliminary results presented at TARL Workshop, ICLR 2019)
○ Worked on *Instrument Recognition in Polyphonic Music* using Attention based Multi-Instance Multi-Label classification framework under weak-supervision (under review at ISMIR 2019)

**Purdue University**, *Research Assistant, Prof. Xiao Wang*        June 2017 - May 2018

○ Worked on Non-Parametric Spatial Transformation Networks for Anatomical Brain MRI Segmentation.
○ Achieved 98.5% accuracy for Wheat-Crop growth-stage classification using Places CNN models.

**Vmock**, *Product Engineer* (New Delhi, India)        December 2015 - July 2016

○ Redesigned & implemented Resume-Parser library to allow integration with existing and future applications.
○ Implemented Presentation Checks library to provide feedback on content presentation in resumes.

**Housing.com**, *Software Developer* (Mumbai, India)        May 2015 - Dec 2015

○ Managed query optimization for accessing and processing geo-spatial data (Real-Estate data & Map Interface)
○ Implemented APIs for region-centric advertisement service for Real Estate Developers.

**Hong Kong University of Science and Technology**, *Research Intern* (Hong Kong)        Summer 2014

○ Studied relationship between spatial distribution of traffic and land-use pattern in Beijing & NYC using large scale taxi-trace and social media data.
○ Used PostGIS & QGIS to process road-network shapefiles from OpenStreetMaps stored in PostgreSQL database.

**Qualcomm Inc.**, *Engineering Intern* (Hyderabad, India)        Summer 2013

○ Implemented submodule and severity based debugging facility in the kernel code for the Multimedia team.
○ Developed real-time handwriting recognition system for IdeaQuest, innovation challenge at Qualcomm India.

## OTHER ACADEMIC PROJECTS

**ICLR 2018 Reproducibility Challenge** ⌥ ★116 ⑂31        Fall 2017

Implemented *Adversarial Learning for Semi-Supervised Semantic Segmentation* in PyTorch

**Homogeneous Self-Dual and Primal Dual Methods for LPs** ⌥        Fall 2017

Implemented Homogeneous Self-Dual algorithm for reliable infeasibility/unboundedness detection.

**Role of mentions in Tweet Virality (Masters Thesis)**        Fall 2014, Spring 2015

Developed *Easy Mention*, a real-time data-driven mention-recommendation system to enhance tweet popularity.

## REFEREED PUBLICATIONS

○ *Unsupervised Discovery of Decision States through Intrinsic Control,* Nirbhay Modhe, **Mohit Sharma**, Prithvijit Chattopadhyay, Abhishek Das, Devi Parikh, Dhruv Batra, Ramakrishna Vedantam, *TARL Workshop, ICLR 2019*

○ *Easy-Mention: A Model driven Mention Recommendation System to Boost your Tweet Popularity,* Soumajit Pramanik, **Mohit Sharma**, Maximilien Danisch, Qinna Wang, Jean-Loup Guillaume and Bivas Mitra, *International Journal of Data Science and Analytics (JDSA), Springer, 2017*

## ACHIEVEMENTS

○ Finalist of ACM/ICPC 2012 Multi-Provincial Programming Algorithmic Contest at IIT Kharagpur.

○ Ranked 916 out of around 500,000 applicants in Indian Institute of Technology Joint Engineering Exam 2010.