

BHAVYA AGRAWALLA

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EDUCATION

Massachusetts Institute of Technology *September 2021 - May 2024*
Candidate for Bachelors of Science in Mathematics (Course 18)
Candidate for Bachelors of Science in AI and Decision Making (Course 6-4) GPA: 4.9/5.0

Indian Institute of Science, Bangalore *September 2020 - July 2021*
Transferred to MIT after first year CGPA: 9.1/10.0

AWARDS AND RECOGNITION

Silver Medal at the International Mathematical Olympiad 2019 *2019*
60th IMO 2019 held at Bath, United Kingdom, [Official link](#)

MIT Outstanding Undergraduate Researcher Award 2023, Nominee *2023*
For contributions to Designing Imaging Systems using Reinforcement Learning (DISeR)

INTERNSHIPS

Vector AI Institute, Ontario, Canada *January 2024*
Incoming Research Intern, supervised by Dr. Murat Erdogdu.
Topic : Analysing the effectiveness of 'information exponent' in capturing SGD sample complexity.

CURRENT PROJECTS

Adaptive Generalised Advantage Estimation *2023*
Bhavya Agrawalla, Idan Shenfeld, Pulkit Agrawal
Upcoming paper

PUBLICATIONS AND PREPRINTS

High Dimensional Central Limit Theorem for Linear Functionals of Online Least-Squares SGD *2023*
Bhavya Agrawalla, Krishnakumar Balasubramaniam, Promit Ghosal
Under Submission, [Arxiv link](#)

Designing Imaging Systems using Reinforcement Learning (DISeR) *2023*
Tzofi Klinghoffer, Kushagra Tiwary, Nikhil Behari, Bhavya Agrawalla, Ramesh Raskar
Accepted at *International Conference on Computer Vision (ICCV) 2023*, [Arxiv Link](#)

Harrison Homology and Quillen Cohomology of Commutative Monoids *2022*
Bhavya Agrawalla, Nasief Khlaif, Haynes Miller
Under Submission, [Arxiv link](#)

CLASS PROJECTS

Fourier Bilinear Value Networks ([Report](#))
Computational Sensorimotor Learning Final Project

Controlling Stable Diffusion with Binary Segmentation Maps ([Report](#))
Advances in Computer Vision Final Project