

AYUSH BHARADWAJ

Phone: +1(669)-300-8673 | San Jose, CA

ayush.bharadwaj@gmail.com | [linkedin.com/in/ayushbharadwaj](https://www.linkedin.com/in/ayushbharadwaj) | <https://github.com/ayusbhar2>

SUMMARY

I enjoy applying ideas from mathematics, statistics, machine learning, computer science, operations research and software engineering to real-world/messy data in order to solve hard and ill-defined problems.

SKILLS

Mathematics • Convex Optimization • Algebraic Geometry • Statistics • Machine Learning • Deep Learning • Operations Research • Software Engineering • Python • Julia • SQL

EDUCATION

San Francisco State University

2020 – 2022

Master of Arts (MA), Mathematics

San Francisco, CA

Thesis: *Complex Critical Points of Deep Linear Neural Networks*

Paper: <https://arxiv.org/abs/2301.12651>

Case Western Reserve University

2012 – 2014

Master of Science (MS), Operations Research

Cleveland, OH

Indian Institute of Technology

2000 – 2004

Bachelor of Technology (BTech), Civil Engineering

Varanasi, India

EXPERIENCE

Data Scientist, Risk and Fraud Detection

May 2016 – Oct 2019

Postmates (acquired by Uber)

San Francisco, CA

- Developed random forest models to detect payment fraud and issue real-time decisions.
- Trained models to mimic human judgment in the absence of ground truth.
- Implemented a “flag for human review” strategy for low-confidence model decisions.
- Developed data pipelines for online and offline feature generation and storage.
- Built a control-group based simulation framework to accurately measure model performance.

Risk Analyst, Consumer Risk

May 2014 – May 2016

PayPal

San Jose, CA

- Identified and investigated payment fraud trends by analyzing transaction data.
- Reduced the Risk system's total cost of misclassification by adjusting decision thresholds.
- Researched new features to include in fraud rules and machine learning models.

Data Scientist, Informatics (Intern)

Oct 2013 – Jan 2014

Explorys (acquired by IBM)

Cleveland, OH

- Wrote ad-hoc map-reduce jobs for summarizing data from massive flat tables.
- Evaluated the effectiveness of classifier algorithms via AUC-ROC analysis.

Software Engineer / Consultant

Jun 2004 – Jul 2012

Infosys Limited

Bangalore, India

- Software development • Query optimization • Systems Integration • Incident management