

Aakash Mishra

4012 Frontera Drive • Davis, CA 95618 • aakmishra1@gmail.com • (530) - 601- 8868 • Git: [aakamishra.github.io](https://github.com/aakamishra)

Education

HARVARD UNIVERSITY

Cambridge, MA

A.B. Computer Science, Economics (secondary), **Honors** - Summa Cum Laude (Top 5%)

May 2023

Relevant Research Work: (1) Mishra 2023. Improving Neural Networks with Generalizable Performance Predictors and Generative Code Language Models - Thesis. (2) Mishra, Aakash, et al. "Improving Zero-Shot Detection of Low Prevalence Chest Pathologies using Domain Pre-trained Language Models." *arXiv preprint arXiv:2306.08000* (2023).

Relevant Coursework: Data Science, Operating Systems, Machine Learning, Distributed Systems, Advanced Networking, Systems Programming and Development, Data Structures and Algorithms, Statistics and Probability Theory, Linear Algebra and Real Analysis, Differential Equations, Security and Privacy, Reinforcement Learning

Positions: Teaching Fellow for Operating Systems (CS161), Teaching Fellow for Advanced Data Science (CS209B), Research Assistant in the Data Systems Laboratory (under Prof. Stratos Idreos), President of Harvard Robotics

Cumulative GPA: 3.99, **Concentration GPA:** 3.97

Awards: Harvard Scholar Award 2020, 2021 (top 5% of class), Certificate of Distinction in Teaching 2022

Technical Skills

Programming Languages: C, C++, Python, SQL, OCaml, HTML, CSS, React JS, R, Perl, Java, Terraform

Libraries / Open Source Projects: PyTorch, Ray, Keras, Open CV, AstroPy, Apache Ranger

Software / Programs: SolidWorks, Onshape, Eagle, Arduino

Experience

Solesca

Chicago, IL

Machine Learning Engineer

March 2023 - June 2023

- Trained sentiment analysis model to predict community responses to solar project development
- Developed pipeline for scraping web-data for town hall meeting notes and new articles for sentiment analysis
- Fine tuned GPT-2 variant model for renewable-energy relevant article notes summarization
- Constructed geo-spatial graph neural network model for predicting effects of solar projects on incidence lighting

Meta

Cambridge, MA

Software Engineer Intern - AI Privacy Insights

May 2022 – August 2022

- Designed privacy detection framework for catching User-Identifying Information violations during ML Platform training
- Integrated feature engineering framework serving platforms with internal ML platform logic
- Automated privacy insight and compliance checks for ML model deployment system alongside data warehousing tools
- Led independent dev-project for implementing privacy compliance in internal end-to-end ML pipeline applications
- Added Instagram Product Community Review feature as a part of the company hackathon

REX - Real Estate Exchange

Palo Alto, CA

Software Development Engineering Intern

June 2021 – February 2022

- Assembled cloud infrastructure using Terraform for AWS EMR and S3 data warehousing
- Worked on microservices deployed using docker images on k8s within EC2 nodes
- Configured Apache Ranger Integration with Apache Hive Databases for fine grained access control
- Developed Airflow DAGS for pushing terabytes of data to Salesforce using Kafka / Confluent

Massachusetts Institute of Technology, Information Systems and Technology

Cambridge, MA

Cybersecurity Engineering Intern

June 2020 – June 2021

- Fabricated Django based REST API to query DHCP, ARP data to monitor network traffic
- Maintained Kubernetes-based load balancing using Podman containers
- Designed a 3D visualization app to monitor 10,000+ alerts per hr. for network intrusion events
- Devised parsing scripts to organize over 30 terabytes of data

Competitions

The Data Open - Citadel Correlation One: Won 1st Place for statistical synthetic control method that showed a causal effect between taking the FDA-approved drug Glipizide and pulmonary heart failure

RoboCup - International Robotics Futbol: Qualified team for international competition in Bordeaux, France (2020)

Harvard President's Start-up Challenge: Received Semi-Finalist award, created an application for patient (telehealthcare)