

Avyuk Dixit

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EDUCATION

Email: avyukd@umich.edu

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University of Michigan

BS in Computer Science, Minor in Mathematics; GPA: 3.98/4.0

August 2020 – May 2024

Ann Arbor, MI

- Courses: Data Structures and Algorithms, Operating Systems, Computer Organization, Algorithms for Data Science, Programming Languages, Real Analysis, Probability Theory, Theoretical Statistics
- Upcoming: Intro to Distributed Systems, Computer Networks, Stochastic Processes, Machine Learning

WORK EXPERIENCE

Optiver

Incoming Software Engineer Intern

June 2023 – August 2023

Chicago, IL

Madison Avenue Partners

Incoming Analyst Intern

Jan 2023 – June 2023

New York, NY

Amazon Web Services

Software Development Engineer Intern

May 2022 – August 2022

Arlington, VA

- **Worked on the Fault Injection Simulator (FIS) Team:** AWS FIS is a fully managed chaos engineering service that make it easier to improve application performance and resiliency.
- **Log Consolidation Project:** Consolidated CloudWatch and S3 logs into FIS console to improve customer experience. Used Athena for querying and uncompressing gzip S3 logs. Built feature in TypeScript/React with native Polaris UI.

Enterprise e-Support, Inc.

Software Developer Intern

May 2021 – August 2021

Springfield, VA

- **Proposal Bid Decision Tool:** Built and deployed internal web application in Flask and React to replace external tool for go/no-go decisions on request for proposals (RFPs). Total cost-savings of \$6000/yr.
- **Resume Parsing Utility:** Streamlined recruiting process by creating machine learning resume parsing utility in Spacy. Tool is now integrated with day-to-day operations at the company; used for ~5000 resumes/month.

Harvard Medical School

Machine Learning Researcher

June 2019 – December 2020

Boston, MA

- Worked under guidance of Dr. Michael Vincent Boland on a project to assess glaucoma progression in patients from multiple data sources using machine learning (Convolutional LSTM). Model had 91% accuracy and 0.89 AUROC.
- **First-authored paper and published in peer-reviewed *Ophthalmology* journal**, the premier publication of the American Academy of Ophthalmology. DOI: <https://doi.org/10.1016/j.ophtha.2020.12.020>; *A. Dixit, J. Yohannan, M. Boland*

PROJECTS

Reshape

January 2022 – May 2022

- Natural language data analytics tool built with SQL, FastAPI, and Spacy.
- Won Contrary Capital Build Sprint and demoed to multiple potential customers including Head of Analytics @ Intuit, Head of Sales @ Phantom Auto, CI Manager @ Google

Market Dashboard

July 2021 – December 2021

- Built platform to help inform investment decisions using FastAPI and React. Features include simplified DCF valuation, commodity supply/demand models, and semantic search over bookmarked research.
- Command line utility for fast options pricing and expected value analysis using Black-Scholes. Helped uncover systematic mispricing of Valaris warrants post-bankruptcy.

ACTIVITIES

Atlas Digital Consulting

August 2020 – Present

- Senior advisor. Atlas does pro-bono tech consulting (primarily mobile/web dev) for local businesses and student orgs.

Quantitative Investment Society

August 2021 – Present

- Strategy team lead, responsible for multiple projects across 20+ members. Projects included pairs trading, event driven data scraping, and a fundamental focused factor model.

Maize and Blue Endowment Fund

September 2021 – Jan 2022

- Student run fund managing \$700,000 of university's endowment. Pitched Zillow Group.

PROGRAMMING SKILLS

Languages: Python, C++, TypeScript

Technologies: FastAPI, React, AWS, Git