Avyuk Dixit

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EDUCATION

University of Michigan **August 2020 – May 2024**
BS in Computer Science, Minor in Mathematics; GPA: 3.98/4.0 *Ann Arbor, MI*

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

WORK EXPERIENCE

Optiver **June 2023 – August 2023**
Incoming Software Engineer Intern *Chicago, IL*

Amazon Web Services **May 2022 – August 2022**
Software Development Engineer Intern *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.
- **Feature deployed to production and used by 300+ customers** including Accenture, Verizon, and iRobot.

Enterprise e-Support, Inc. **May 2021 – August 2021**
Software Developer Intern *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 **June 2019 – December 2020**
Machine Learning Researcher *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**
Side Project *Ann Arbor, MI*

- Natural language data analytics tool built with SQL, FastAPI, and Spacy. Landing page here: https://reshape-io.github.io/
- 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**
Side Project *Ann Arbor, MI*

- 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**

- Pro-bono tech consulting (mobile/web dev, database management, and machine learning) for local businesses.

Quantitative Investment Society **August 2021 – Present**

- Leading project to create unsupervised learning model to identify opportunities for pairs trading and factor investing.

Maize and Blue Endowment Fund **September 2021 – Present**

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

PROGRAMMING SKILLS

Languages: Python, C++, TypeScript **Technologies:** FastAPI, React, AWS, Git