

Avyuk Dixit

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EDUCATION

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University of Michigan

BS in Computer Science, Minor in Mathematics; GPA: 3.92/4.0

August 2020 – May 2024

Ann Arbor, MI

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

WORK EXPERIENCE

Optiver

Software Engineer Intern

June 2023 – August 2023

Chicago, IL

- Worked as part of the Global Data Engineering team – we are responsible for capturing market data network packets and generating pristine unstructured datasets for downstream use. Worked in Python, C, and C++.
- Migrated bandwidth stats to our packet sifter app to determine cross connect traffic on a per link and channel basis. Redesigned and improved relevant Python interfaces, reducing end-to-end latency in the process. Merged and released.
- Designed a two-part project aimed at garnering visibility into sifter application performance. First, built, merged, and released a liveness audit in Python that flags sifters at risk of falling behind – crucial win that minimized operational burden and end impact on research/trading teams. Second, wrote a shared performance stats library leveraged by our sifter app to identify slow sections of code. Wrote a performance stats audit to regularly pinpoint sifter slowness.
- Added new microwave feeds to existing sifter instances and validated minimal slowdown – merged and released.

Madison Avenue Partners

Analyst Intern

Jan 2023 – June 2023

New York, NY

- Madison Avenue Partners is a \$1bn+ L/S event-driven, value-oriented hedge fund. I conducted diligence on names across industries, screened for and pitched ideas, and learned about all parts of the investment lifecycle.

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.

PROJECTS

Market Dashboard

July 2021 – Current

- 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.

SKILLS

Languages: Python, C++, C, TypeScript

Other: Excel