

# Avyuk Dixit

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## EDUCATION

### 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 for Data Science, Programming Languages, 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

- Part of the Global Data Engineering team – we are responsible for capturing market data network packets and generating pristine unstructured datasets for downstream use. Primarily working in C (and some C++ and Python).

### 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.

### 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. Yobannan, M. Boland

## 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++

Other: Excel