

Ishan Arya

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Objective

To obtain a full-time job as a software engineer where I can tackle complex problems.

Education

Georgia Institute of Technology, Atlanta – 3.9 GPA

August 2018 - May 2022

Bachelor of Science in Computer Science

Skills

- Familiar Programming Languages: Java, Typescript, Python, C, Go, C++, Bash, Kotlin, VHDL/Verilog
- Experience with: PostgreSQL, Node, SQL, NumPy, Pandas, Kubernetes, Azure, OpenCV, Agile, Google Cloud Platform, Docker, Jenkins, React, Git, Electron, Spring Boot, Heroku, Prometheus, Android, MongoDB

Work

DRW Trading Group - Commodities Engineering

Software Engineer - [Java, Typescript, Python, PostgreSQL, Redux]

July 2022 - PRESENT

- Spearheaded the creation of an options valuation platform for real-time pricing of diverse product derivatives
 - Researched and implemented high speed matrix algorithms in Java for pricing options
 - Developed a wrapper for C++ libraries to facilitate memory management in Java, cutting latency by 75%
 - Led maintenance and expansion for this platform, the sole options pricing engine across the org
- Redesigned the historical time series research platform, resulting in improved navigation and visibility
 - Optimized platform frontend—reducing load times by over 95%—leading to widespread product adoption
 - Introduced features to enhance dashboard efficiency for advanced users, streamlining their workflow
- Developed a custom exposure analysis platform for FTR contracts, enhancing trader decision making
 - Improved platform performance, allowing for 5x more traffic without increasing server costs
 - Set up a reactive frontend, enabling traders to craft personalized dashboards and elevating user QOL
 - Acquired in-depth knowledge of FTR markets to develop multiple models for constraint exposure
- Created a full-stack app for profit/risk analysis, providing team leads/CEO with key insights on desk performance
 - Developed an ETL pipeline to refine data from ISO, exchange, and OTC deals in power and gas markets
 - Ensured fast UI response times by asynchronously caching and preprocessing over 1 TB of data
 - Designed a dashboarding platform, allowing users to create custom views of their relevant data
 - Implemented rigorous testing and alert systems for prompt data error identification, ensuring validity
- Worked with non-tech stakeholders and engineering managers to identify product requirements and timelines

Meta/Facebook - Digital Commerce

Software Engineering Intern - [C++, Hacklang]

September 2021 - December 2021

- Designed the subscription trial feature for Meta's payments platform, compatible with existing payment options
- Developed and integrated the feature across multiple large codebases with Meta's custom data stores
- Facilitated cross-team communication, ensuring feature was delivered with quality and ahead of schedule

Microsoft - Azure Kubernetes Service

Software Engineering Intern - [Go, Python]

June 2021 - August 2021

- Designed and built a diagnostic tool to pinpoint DNS issues in managed Kubernetes clusters with low privilege
- Combined low level Linux tools with diverse Kubernetes configurations to create a comprehensive test suite
- Worked with stakeholders across the org to create customer facing tools for deployment and feedback

Software Engineering Intern - [Go, Python]

May 2020 - July 2020

- Implemented autoscaling based on custom metrics to limit high levels of saturation and reduce resource usage
- Pushed bug fixes to open-source production applications while responding to real time feedback from end users
- Learned how to deploy and manage large Kubernetes clusters in a scalable, secure way

The Home Depot

Orangeworks Research Intern - [Python, WebAssembly]

January 2019 - May 2021

- Researched the applications of various technologies in aiding with daily tasks for Home Depot employees
- Processed barcode data using video feeds from a drone to autonomously conduct inventory in stores
- Used OpenCV to identify, refine, and extract item data from the low-resolution barcode images