# Anav Sharma

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#### **EDUCATION**

Purdue University West Lafayette, IN

Bachelor of Science, Computer Science (Minor: Mathematics, Statistics)

Aug. 2020 – May 2024

• Relevant Coursework: Analysis of Algorithms, Data Structures & Algorithms, Machine Learning, Systems, Real Analysis, Computer Architecture, Linear Algebra, Discrete Mathematics, C Programming

### **EXPERIENCE**

Societe Generale New York, NY

Software Engineer

Jul. 2024 – Present

- Developing and monitoring the firm-wide fixed income trading platform with C# and Python. Focusing on performance and reliability of up to 20,000 daily trades for both auto and manual order execution on a global scale.
- Collaborating with traders, quants, and sales to gather and refine requirements, engineering new features and improvements that enhance trading efficiency and profitability.
- Implementing a robust feedback loop to continuously monitor platform performance and user satisfaction, including developing data analysis tools and visualizations to support trading decision-making and application functionality.

Software Engineer Intern

Jun. 2023 - Aug. 2023

- Developed a Python-based interactive matrix viewer leveraging NumPy, Pandas, SQL, and internal/external APIs for the fixed income trading desk platform, enhancing the daily trade analysis experience.
- Implemented data-driven monitoring and analytics for 60,000+ live data points to improve trading applications.
- Performed statistical analysis on trade data to create visualization dashboards and automated warnings in Python.

# **Integral Ad Science**

New York, NY

Software Engineer Intern

Jun. 2022 - Aug. 2022

- Developed a backend REST API engine for generating actionable recommendations based on chart data using Java Spring Boot and Spring Cloud, Gradle, and Maven.
- Optimized backend workflow to allow for easier product integration for 200+ clients.
- Implemented integration tests using SQL and Spock testing for Groovy and Java to ensure robustness of code.

IMC Trading Chicago, IL

Launchpad Program Participant

May 2022 – May 2022

• Analyzed and implemented quantitative market-making trading strategies over a 2-day program using in-house trading simulations, mathematical skills, and Python. Selected as 1 of 28 students to participate in the program.

WhizAI Somerset, NJ

Machine Learning Intern

May 2021 – Aug. 2021

- Developed data visualization models with decision trees using XGBoost and sci-kit learn in Python.
- Worked with AWS SageMaker to develop, train, and manage models.
- Trained visualization models using Deep Java Library (DJL) to compare with SageMaker workflow.

# Merck & Co., Inc.

West Lafayette, IN

Full-Stack Developer Researcher

Aug. 2020 – May 2021

- Developed a mobile application with React Native to communicate biometric data collected by fitness watches.
- Used Node.js and Express to develop a REST API for back-end development under the Agile development cycle.

# TECHNICAL SKILLS

Languages: Java, Python, C#, C, C++, R, SQL, JavaScript, HTML/CSS

**Technologies/Frameworks:** Spring, Pandas, NumPy, scikit-learn, XGBoost, Maven, Spock, Docker, ReactJS, Node.js, Amazon SageMaker, Deep Java Library (DJL), DL4J, Git, Microsoft Excel

## **TECHNICAL PROJECTS**

# Blackjack-Python

• Created a comprehensive blackjack application that includes reinforcement agents and Monte Carlo simulations for optimal strategy calculations.

### **HTML Parser** – C Programming Language

• Created an application that processes 50+ supported tags and attributes in an HTML file and outputs the plain text.