

# Anav Sharma

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## EDUCATION

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### 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, Probability, Machine Learning, Systems, Real Analysis, Computer Architecture, Linear Algebra, Discrete Mathematics, C Programming

## EXPERIENCE

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### Societe Generale

New York, NY

Software Engineer

Jul. 2024 – Present

- Developing and maintaining a global high-performance fixed income trading platform in C# and Python which supports automated market making and manual trades, handling up to 20,000 trades daily.
- Engineering new features and enhancements to the trading application by collaborating closely with traders, quants, and sales to improve efficiency and profitability.
- Implementing a robust performance monitoring framework and data analysis tools with SQL and Python to inform trading decisions and optimize platform 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

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**Languages:** Python, Java, C++, C#, C, SQL

**Technologies/Frameworks:** Pandas, NumPy, scikit-learn, XGBoost, Pandas, Maven, Spock, Docker, ReactJS, Node.js, Amazon SageMaker, Git

## TECHNICAL PROJECTS

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### 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.