

ROSHNI GUHA

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EDUCATION

University of Wisconsin - Madison, WI, USA

September 2024 - Expected May 2028

Bachelor of Science in Computer Science (Honors) and Mathematics (Planned), Certificate in Business

Cumulative GPA: 3.87/4.0 | Dean's List

Relevant Coursework: Object-Oriented Programming and Data Structures (Java), Artificial Intelligence, Matrix Methods in Machine Learning, Linear Algebra, Discrete Mathematics, Microeconomics, Engineering Statistics (R)

PROFESSIONAL EXPERIENCE

CapitalFund Investment Team

Hawk Center for Investment Analysis, UW Madison

Undergraduate Researcher - Quantitative Finance

September 2025 - Present

- Developed quantitative strategies to manage a portfolio of \$1M+ as a part of a student-managed CapitalFund Investment Team using Interactive Brokers, Docker and automated trading tools.
- Built and refined the production tech stack and data flow, transforming Model State into Aggregate Optimized Positions for live portfolio execution. Developed model prototypes, including a momentum-based model for SPY with an MVO framework and a reinforcement learning model for global equities, as part of the team's systematic strategy research.

Royal Bank of Canada Wealth Management

Madison, WI

Project Intern

September 2025 - Present

- Developed an AI-driven equity research tool that integrates financial APIs (Yahoo Finance), sentiment feeds (Reddit, X), and financial news aggregators to automate equity research workflows for portfolio managers.
- Built a functional MVP in Python and Node.js that retrieves, summarizes, and visualizes multi-source insights (fundamentals, earnings surprises, sentiment, and technical indicators), reducing manual research time by over 50%.

Department of Computer Sciences

University of Wisconsin–Madison, USA

Peer Mentor - Programming II

June 2025 - Present

- Mentored 600+ students in object-oriented programming, data structures, recursion, and algorithm complexity during office hours and supported development of debugging skills during the development of complex weekly projects.
- Promoted after mentoring Programming I class over the summer, leading 4 labs and office hours for 45+ students with minimal programming experience in concepts such as control flow, data types, functions and debugging.

Al Khayat Contracting LLC

Dubai, UAE

Summer Data Analyst Intern

July 2023 - July 2023

- Assisted senior analysts in compiling and interpreting payment, working capital, and tender data, improving reporting workflows and reducing turnaround times by ~20%, supported by SQL knowledge gained through prior training.

CERTIFICATION

IIT Kanpur Machine Learning

August 2025

- Designed, implemented, and evaluated supervised and unsupervised ML models in Python, including regression and clustering techniques. Applied model interpretability tools (SHAP, LIME) for and delivered end-to-end ML solutions.

LEADERSHIP

Cardinal Trading Group

Expected January 2026

Incoming Vice President of Software Development

- Lead development and backtesting of quantitative trading strategies for the student-run trading organization
- Coordinate between software developers, market researchers, and the CS department as the CS-RSO representative

PROJECTS

UW Match

September 2025 - November 2025

Python, AI APIs, Svelte, FastAPI, MongoDB, Node.js (<https://www.uwmatch.com>)

- Built course search platform with 350+ users featuring AI-generated summaries and analytics; led ML integration developing recommendation models based on user interests and course popularity for improved discovery

Smoking Habit Predictor

August 2025

Python, Pandas, Matplotlib, Scikit-learn, Numpy ([Github](#))

- Preprocessed health dataset including outlier detection and applied ML models to achieve ~76% accuracy with SVM using 10-fold cross validation; evaluated feature scaling and visualized correlations and model performance with Matplotlib.

SKILLS

Languages & Tools: Python, Java, SQL, R, PyTorch, Numpy, Pandas, Matplotlib, Scikit-learn, Microsoft Office

Concepts: OOP, Data Structures, Financial Forecasting, Data Analysis, Backtesting, Optimization, Machine Learning