Romir Mohan

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EDUCATION

Northwestern University

Evanston, IL

B.S. in Computer Science & Mathematics

Expected Jun. 2028

- GPA: 3.96/4.00 | Major GPA: 4.00/4.00 | Dean's List | ACT: 36/36
- Relevant Courses: Algorithms, Computer Systems, Data Structures, Functional Programming, Graph Theory, Intelligent Information Systems, Linear Algebra, Machine Learning, Programming in C/C++, Regression Analysis
- Awards: 3rd Place Northwestern Trading Competition, 3x AIME Qualifier with Distinction, Honorable Mention in Mathematics for Miami Herald Silver Knight Award

Experience

Northwestern Financial Technologies

Oct. 2024 - Present

Quantitative Researcher

Evanston, IL

- Built a full trading strategy in Python and C++ for 10+ cryptocurrencies as part of desk simulation competition.
- Researched quantitative strategies and engineered 15+ features with unit tests to develop a L.A.S.S.O model.
- Led development of event projects including C++ low latency challenge, market making, and decision tree racing.

Mercor

Feb. 2025 – Apr. 2025

 $Multimodal\ STEM\ Expert$

Remote

- Trained a machine learning model with engineered questions to provide 300,000+ users technical hiring assistance.
- Worked with OpenAI Feather platform to streamline and automate the data labeling process for 2M+ responses.
- Refined evaluation metrics to measure model accuracy and bias, improving response quality for STEM prompts.

Florida State Senate Campaign

Jun. 2024 – Aug. 2024

Data Strategist

Weston, FL

- Developed quantitative metrics in R using voter activity and trends to analyze 230,000+ voters and their habits.
- Created 60+ digital canvassing "walking maps" through VoteBuilder and React web app for 50+ campaign staff.

Mu Alpha Theta

Sep. 2020 - Present

Test Writer, Former State Secretary

Plantation, FL

- Composing tests focused on advanced algebra, calculus, probability, and statistics for 700+ students nationally.
- Led integration bees and expositions for 500+ students, earning \$2,000+ sponsorships with Jane Street, Desmos.

Projects

Social and Professional Network Graph | CSS, HTML, Firebase, Flask, JavaScript, Python, OpenAI, React

- Designed a full-stack application of a social graph representing 150+ Kappa Theta Pi members and information.
- Trained an vectorized NLP function for parsing members' resumes and online activity to generate connections.

Cryptocurrency Trading Pipeline | C++, CMake, Conan, Git, GitHub + Actions, pybind11, Python, UNIX

- Built a complete automated trading pipeline sans execution for BTC on Coinbase, achieving 70% realized return.
- Prepared pipeline data ingest for 200,000+ API queries and implemented computation per tick for 5+ features.

High-Frequency Market Making Model | C, C++, Gemini API, Python, Rust

- Created a market-making strategy with "penny-in, penny-out" method, generating cumulative returns of 135%.
- Implemented a back testing framework to evaluate model performance over varying time horizons and parameters.

Housing Supply and Homeless Population Forecast | Matplotlib, Numpy, Pandas, Python, R, RStudio, Vim

- Built a prediction schema with Holt time-series, SSE optimization, and proprietary Dynamic Programming Model.
- Presented changes in housing pricing and spending for homeless population to reduce by 82% in ten years time.

Technical Skills

Languages: Bash, C, C++, CSS, HTML, Java, JavaScript, LATEX, Python, SQL, R, Racket, Rust, TypeScript Technologies: APIs, Cloud Infrastructure, Flask, Make, Node.js, Numpy, OpenAI Platform, Pandas, React, UNIX Developer Tools: AWS, Firebase, GDB, Git, GitHub + Actions, LATEX, Microsoft Tools, SSH, Valgrind, Vim, VS Code