Ryan Ramboer
Computer Science Student

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Education

University of Michigan | College of Engineering   **Ann Arbor, MI | Aug 2020 – Dec 2023**

· Bachelor of Science in Engineering, Computer Science
· GPA: 3.84/4.00 | Awards: Dean's List, University Honors, James B. Angell Scholar
· Coursework: *Data Structures and Algorithms, Theory of Computer Science, Discrete Math, Software Engineering, Computer Organization, Intro to Artificial Intelligence, Computer Security, User Interface Design*
· Activities: Theta Capital (VP), DIII Hockey (National Champion), Michigan Journal of Economics (Editor)

Experience

Software Engineering Intern | FactSet Research Systems   **Norwalk, CT | May 2023 – Aug 2023**

· Architected and developed 3 API endpoints for the five in-house and vendor portfolio optimization applications
· Constructed Jupyter Notebooks totaling 600 lines of code to demonstrate API functionality and use cases to clients
· Facilitated the ability for clients in buy-side quant and finance to automatically build an optimal portfolio given constraints and objectives entirely programmatically, removing reliance on the user interface

Software Verification Engineering Intern | Gentherm   **Northville, MI | May 2022 – Aug 2022**

· Developed a test suite summing to 3400 lines of code to verify and validate internal test automation software tools written in Vector CAPL and run in Vector CANoe
· Created and executed 200+ software and systems test cases on ECUs for customer products using simulation tools
· Generated and submitted test reports with list of defects directly to clients and the global team

Webmaster | UMich Fall Engineering Career Fair   **Ann Arbor, MI | Jan 2022 – Sep 2022**

· Reconstructed and maintained the official website for the UMich Fall Engineering Career Fair, which was viewed more than 26,000 times and brought in $263,100 in revenue from 260+ companies
· Oversaw the Website Committee Chairs, providing valuable insight to the directors and informing decisions
· Organized 5,000+ students and 400+ corporate recruiters on the days of the event, ensuring maximal efficiency

Skills

Software: C++, C, Python, JavaScript, Vue.js, jQuery, HTML, CSS, Bootstrap, RESTful API, Microsoft Excel, GitHub, Git, Perforce, Vector CAPL & CANoe & CANalyzer, Thinkorswim, IBM Rational Jazz, Raspberry Pi, VS Code, Bash

Abilities: Object-Oriented Programming**,** Web Design, Team Leadership, Radical Candor, Proactive Efficiency, Advanced Financial Market Analysis (Stocks, Options, Bonds, Futures; Bloomberg Market Concepts Certified)

Projects

Risk-Optimized Trading Bot (Python, JSON): Developed an automated stocks and derivatives trading bot using a Robinhood API wrapper and a back-testable portfolio optimizer library, reoptimizing at predetermined intervals to ensure trades are calculated using sufficiently recent market data

Multi-Purpose Discord Bot (JavaScript, MongoDB): Utilized Discord API to implement server management capabilities and other entertainment features like a casino, economy, and games; Self-hosted on Raspberry Pi

Recipe Book Website (HTML, Bootstrap, Vue.js, JSON): Created highly extensible recipe book website containing 210 recipes and counting; Designed for accessibility and supports all device sizes and types

Sudoku Solver (C): Implemented demo and user-input modes, tested on one million valid games

MHacks-14 Hackathon (HTML, CSS, JavaScript): "Fastr Food"; Directed users to the dining hall with the quickest meal acquisition time using crowdsourced line length data and travel time from Google Maps API; Won Best Beginner Hack and Best Use of Google Cloud out of 164 participants

Stock Simulator (Python): Modeled rally and crash price action with parametrizable initial conditions using a complex systems Monte Carlo simulation considering investor panic and the fear-of-missing-out