

Pavan Varakantham

varakantham@wisc.edu | +1 (360) 810-6371 | [linkedin.com/in/pavan-varakantham/](https://www.linkedin.com/in/pavan-varakantham/) | Seattle, WA | U.S. Citizen

EDUCATION

University of Wisconsin - Madison

Madison, WI

B.S. Computer Science & B.S. Statistics

May 2026

- **Relevant Coursework:** Data Structures & Algorithms, Object-Oriented Programming, Computer Systems & Design, Linear Algebra, Multivariate Calculus, Machine Learning for Engineering Research, Data Science Modeling
- **Activities & Organizations:** Cardinal Trading Group, Software Development Club, DotData Club, Capital Management Club

PROFESSIONAL EXPERIENCE

Quantify 360 Solutions

Remote

Software Engineering Intern | React.js, GraphQL, AWS

Sept. 2023 - Jan. 2024

- Assisted in building a personal finance platform using React for the frontend, GraphQL for efficient data querying, and AWS for secure hosting and deployment; integrated user spending habit analytics and personalized financial suggestions.
- Developed a React-based website, integrating dynamic contact forms via RESTful APIs to enable real-time data updates.
- Debugged code and implemented unit/integration tests to ensure reliability and leveraged Postman for API validation.
- Authored detailed software documentation covering user interactions, API functionality, and UX design specifications.

Ovation Technology

Olympia, WA

Cybersecurity Intern | Nmap, OpenVAS

Jun. 2023 - Aug. 2024

- Conducted 10+ vulnerability and penetration tests on WA State Dept. applications, contributing to risk mitigation efforts.
- Evaluated cybersecurity technologies for integration into client frameworks, recommending risk mitigation strategies.
- Assessed \$100k+ cybersecurity vendor budgets, analyzing overall feasibility and alignment with client security needs.
- Participated in cybersecurity training sessions based on common security threats and effective mitigation techniques.

Berkeley Pharma Tech

Remote

Game Software Engineering Intern | C#, Unity

Jan. 2023 - May. 2023

- Developed *BPT Shooter*, a 2D shooter game, using C# and Unity for core gameplay mechanics and physics interactions.
- Designed and optimized game levels with Unity's Tilemap and Prefab systems for more efficient rendering performance.
- Published *BPT Shooter* on iOS and Android platforms, achieving over 300 cumulative downloads shortly after launch.

PROJECTS

WiscWash - UW Madison Housing | Personal Project | JavaScript, Python, React.js, Spring

Oct. 2024 - Present

- Collaborating with a team of 4 to build a web application for real-time dorm washing machine availability visualization.
- Implementing collaborative filtering algorithms to recommend usage times based on user preferences and historical data.
- Designing an intuitive user interface that allows residents to easily track appliance availability and key statistics/trends.

Tick Data Aggregator | Personal Project | Python, pandas, numPy

Jul. 2024 - Aug. 2024

- Developed a Python-based data processing system to load, clean, and aggregate millions of stock tick data records.
- Optimized data ingestion and processing by implementing multithreading techniques, reducing runtime by over 300%.
- Leveraged pandas and numPy to correct misformatted stock values while generating OHLCV bars for real-time analysis.

LEADERSHIP & ACTIVITIES

Cardinal Trading Group

Madison, WI

Software Developer | Python, C++, SQL

Sept. 2024 - Present

- Develop and implement algorithmic trading models by incorporating quantitative strategies to predict market trends.
- Build and maintain preprocessing data pipelines and backtesting frameworks to support efficient model evaluations.
- Research, design, and implement low-latency design patterns for high-frequency trading to maximize trading speed.

TECHNICAL SKILLS & INTERESTS

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

Frameworks: Django, Spring, .NET, React, Angular

Libraries: pandas, NumPy, scikit-learn

Tools: Git, VS Code, Visual Studio, PyCharm, Google Colab, Linux

Interests: Basketball, Hiking, Skiing, Formula 1, Fantasy Football, Real Estate