

Brian Wang

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SUMMARY

CS/Math sophomore with hands-on C/C++ experience building systems-level projects. Strong foundation in OS fundamentals, data structures, and performance-aware design. Seeking Summer 2027 internships in systems development or C++ focused roles.

EDUCATION

Worcester Polytechnic Institute

Worcester, MA

B.S. Computer Science and Mathematical Sciences | GPA: 4.0 | Dean's List | Charles O. Thompson Scholar

2024 - 2028

Relevant Coursework: Operating Systems, Artificial Intelligence, Numerical Methods, Stochastic Processes

SKILLS

Languages: C++(11/14/20), C, Python, SQL, Java, MATLAB

Tools: Linux/Unix, Git/GitHub/GitLab, Docker, AWS, CMake

Technologies: pandas, numpy, scikit-learn, PyTorch, Flask

PROJECTS

C++ Exchange Simulator | Independent Project

C++17, CMake, STL

- Designed limit order book matching engine with price-time priority achieving **327K orders/sec** throughput and **sub-5µs P99 latency**.
- Built test suite with golden test framework and performance profiler to validate correctness and runtime.
- Implemented efficient data structures using STL containers (std::map, std::list, std::unordered_map) and Observer pattern for event-driven order processing.

Gamified Internship Tracker | Course Project

Python, SQL, AWS, Flask, Agile/Scrum

- Led backend architecture for full-stack internship tracker in four-person Agile team, translating stakeholder requirements into technical specifications and sprint deliverables.
- Implemented REST APIs and authentication while improving reliability through iterative testing and stakeholder feedback.
- Applied AI development tools after establishing core backend architecture, using Cursor/Claude to accelerate feature implementation.

Algorithmic Trading System Development | Undergraduate Research Project

Python, ML/Stats

- Led a self-directed quantitative trading research project, iterating through hypotheses to develop five proof-of-concept intraday and overnight models.
- Engineered modular Python trading systems on QuantConnect processing millions of equity and ETF data points, achieving **Sharpe of 1.4** and **P/L ratio 1.75**.
- Applied time-series analysis, optimization, and feature engineering to build data-driven signals across varying market regimes.

EXPERIENCE

Cyvl.ai | Software Engineering Intern

Summer 2026 (Incoming)

- Incoming software engineering intern focused on analytical problem-solving and software development for 3D mapping and geospatial technology applications.

The Cone Concession Stand | Customer Service Management Intern | Cape Cod, MA

Jul 2023 – Aug 2025

- Led daily operations for a 5-person team in a high-volume environment, developing strong communication and fast decision-making skills.
- Trained new team members and coordinated team execution, reinforcing leadership and collaboration abilities.

ACTIVITIES & LEADERSHIP

Theta Chi: Assistant Treasurer | **Investment Association:** Technology Sector Analyst | **SASE:** Peer Mentor |

Interests: Tennis, Swimming, Biking, Hiking, Lifting

CERTIFICATIONS

Coursera: C++: Data Structures & Algorithms | Pandas for Data Engineering | Quantitative Modeling Fundamentals