Kevin Shan

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Education

Georgia Institute of Technology — Atlanta, GA

B.S. in Computer Science, Minor in Mathematics — *GPA: 4.0* — *Expected Graduation: May 2026*

- **Skills:** `C++`, `C`, `Rust`, `perf/hotspot`, Linux, `Python`, `C#`, `Java`, Git

Experience

Software Engineer — Aug. 2026

Jane Street Engineer — *New York City, NY*

- Incoming full-time Software Engineer at Jane Street.

Quantitative Developer Intern — June 2025 - Present

Citadel, Global Quantitative Strategies: ***`C++, perf, hotspot, gRPC`*** — *Chicago, IL*

- Developed automated logging and telemetry systems for performance monitoring, for systematically profiling client-side CPU vs RPC runtimes, stack traces, memory usage, and fine-grained metrics for individual queries.
- Used these systems, alongside tools like `perf`, `hotspot`, `valgrind` and more, to identify and resolve performance issues in production, achieving significant speedups and improvements, improving query latency in many cases by **10x**, and memory overhead by **8x**.
- Designed and built a latency-critical component of the trading path responsible for ingesting market data and generating signals to support real-time decision-making in short-horizon strategies.

Undergraduate Researcher — May 2024 - Present

Georgia Institute of Technology, Computer Architecture Lab: ***`C++, C, perf`*** — *Atlanta, GA*

- Investigating how CXL can be used as a substitute for RDMA/networking to transform message-passing distributed server architectures into shared-memory systems.
- Researching hardware-software co-designed solutions for memory-side fault tolerance in CXL disaggregated systems.
- Benchmarked memory access latency various computer architectures, estimating component-wise latency (cache, interconnect, DRAM) with a variety of hardware counters and profiling tools.

Extracurriculars

ICPC World Finalist, North American Championship Bronze Medalist — May 2025

International Collegiate Programming Contest — *Atlanta, GA*

- Won a bronze medal at the 2025 ICPC North American Championship, placing 6th and qualifying Georgia Tech for the 2025 ICPC World Finals.

Lead Developer — Sep. 2023 - Present

Quantitative Development Team: Trading at Georgia Tech — *Atlanta, GA*

- Designed and deployed a comprehensive high-frequency trading system for cryptocurrencies using `Rust`.
- Developed and benchmarked custom memory allocators (stack, huge-page aware, ring) and cache-efficient orderbooks, each optimized for distinct workload characteristics.
- Led development by assigning projects, reviewing code, and mentoring new members in systems programming.

Competitive Programming — Aug. 2020 - Present

All competitions done in ***`C++`****. Placements labeled on the left.*

- (***250/5k***) USACO (United States Computing Olympiad) Platinum Division
- (***200/30k***) Meta Hacker Cup, 2-time Top 200, Round 3 Qualification
- (***1k/30k***) Google Code Jam Round 3 Qualification
- ***(41/20k)*** Google Kickstart Round F, 41st place globally
- ***(21/3k)*** Codeforces "International Master" (rated 2378), ranked 21st in U.S. and top 0.5% of 150k+ globally

Projects

Ringbook — July 2024

`C++` — *https://github.com/kevins19/ring-orderbook*

- Built a flat, stack-based, zero-alloc orderbook using an indexed ring buffer, achieving constant-time operations and a 3× speedup over `std::map` in real-time exchange workloads.