David Chen

New York, NY, USA

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Education

Columbia University

Master of Science in Computer Science (Machine Learning Track)

Sep 2013 – May 2015 | New York, NY, USA

Cornell University

Bachelor of Science in Computer Science

Aug 2009 – May 2013 | Ithaca, NY, USA

Work Experience

Senior C++ Developer (Low Latency) | Two Sigma | Jun 2017 - Present | New York, NY, USA

- Developed high-frequency trading (HFT) system components in modern C++ (C++11/14/17/20) focusing on ultra-low latency and high throughput.
- Optimized critical code paths using techniques like cache-aware programming, lock-free data structures, and compiler optimizations.
- Worked extensively with Linux system programming, multithreading, and network programming (TCP/IP, UDP, Sockets).
- Designed and implemented messaging middleware for inter-process communication.
- Participated in performance benchmarking and analysis using tools like perf, Valgrind.

C++ Software Engineer | Bloomberg LP | Jul 2015 - May 2017 | New York, NY, USA

- Developed backend systems for financial data distribution.
- Worked on large-scale C++ codebases.

Skills

Programming: C++ (Expert - C++11/14/17/20), Python (Intermediate - for tooling/testing), Bash

Low Latency Techniques: Performance Optimization, Cache Coherency, Lock-Free Programming, Memory Management, Zero-Copy Techniques

Operating Systems: Linux (Advanced - Kernel basics, System Calls, Performance

Tuning)

Networking: TCP/IP, UDP, Sockets, Multicast, Network Programming

Tools: GCC/Clang, GDB, Valgrind, Perf, CMake, Git, Jenkins

Concepts: High-Frequency Trading (HFT) Systems, Market Data Feeds, Order Execution Systems, Concurrency & Multithreading (pthreads, std::thread), Data Structures & Algorithms (Advanced)

Methodologies: TDD, Performance Benchmarking, Agile (Kanban)

Certificates

None typically specified, focus on low-level expertise

Awards

Two Sigma Technical Achievement Recognition (Internal)

Columbia University Graduate Fellowship