

PRESENT ADDRESS

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PERMANENT ADDRESS

2558 Breckenridge Ct.
Aurora, IL 60504

EXPERIENCE

Software Engineer, Trading JUMP TRADING, CHICAGO 2019-Present
Began on the Core Development team and moved to a large trading team at the firm. Worked with several others as part of a team focused on ‘clean slate’ development of a trading engine for options. Contributed many pieces to the effort, ranging from automatic python binding generation via the **Clang AST** to a high performance, low latency app metadata emission system used for realtime post-trade analysis. Mostly wrote in C++, with some diversions to learn **CMake**.

Strats Associate, QVT GOLDMAN SACHS, HONG KONG 2018-2019
Worked on the Listed Options, Warrants and Callable Bear Bull Contract desk, trading in Hong Kong, Japan and India. Ported the research/scripting interface from C++ ↔ Slang to C++ ↔ **Python**. Designed a **Layer 1** switching topology minimizing tick-to-trade and timestamping all actions. Worked on the creation, deployment, and benchmarking of a new **Fast Delete** system, designed and wrote the **tick-to-trade analysis** (hardware timestamps taken at the Layer 1 switch and network card) in C++ and **Pandas**.

Strats Associate, QVT GOLDMAN SACHS, NEW YORK 2017-2018
Took over maintenance and improvement in our consolidated networking library. This library provides a generalized and concrete framework for publishing option theoretical values, normalized market data, trading events in remote colocations, and information about our quotes in local and remote colocations.

Strats Analyst, QVT GOLDMAN SACHS, NEW YORK 2015-2017
Worked on the infrastructure team on the Options Market Making business. Mainly worked in C++, with analysis done mostly in **Python** and Slang. Worked on the core networking and memory management libraries for the group, including the **InfiniBand** code, which was improved with Management Datagram monitoring. Wrote a multicast line to thread scheduler for our consolidated networking library.

Strats Summer Intern, Quant Vol Trading GOLDMAN SACHS, NEW YORK Summer 2014
Wrote code in C++ for automated market making in options, and an order routing system for equities. My modifications were in production by the end of the summer.

EDUCATION

B.S. Computer Engineering ILLINOIS INSTITUTE OF TECHNOLOGY 2011-2015

AWARDS

Camaras Scholar
[1 of 30 in my class]

Duchossois Leadership Scholar Member of the Inaugural Class
[1 of 3 in my class]

ENGINEERING SKILLS

C++ and Python Programming, Linux Systems Programming and Administration, InfiniBand, Ethernet/IP Multicast, Layer 1 Switching, Kernel Bypass, Technical Research, L^AT_EX.