

Tyler O'Meara

tyleromeara.com
resume@tyleromeara.com | 845.242.2181

EDUCATION

STANFORD UNIVERSITY

MS IN COMPUTER SCIENCE

June 2021 | Stanford, CA
Primary Depth in Systems
Cumulative GPA: 4.107

THE UNIVERSITY OF TEXAS AT AUSTIN

BS IN COMPUTER SCIENCE

December 2016 | Austin, TX
Turing Scholars Honors Program
Cumulative GPA: 3.90

SKILLS

COMPUTER SCIENCE

Distributed Systems
System Design
Concurrent Programming
Internet Networking
Infrastructure Security

PROGRAMMING LANGUAGES

C++ (Proficient)
Go (Proficient)
Python (Familiar)
C (Familiar)

COURSEWORK

STANFORD

Advanced Topics in Operating Systems
Data Management and Data Systems
Introduction to Cryptography
Principles of Data-Intensive Systems
Computer Systems Architecture
Advanced Topics in Computer and Network Security
Performance Engineering of Computer Systems and Networks
Technology for Financial Systems
Internet Routing Protocols and Standards
Program Analysis and Optimization

TEXAS

Advanced Operating Systems
Algorithms and Complexity Honors
Computer Architecture Honors
Computer Security
Computer Systems (OS) Honors
Distributed Computing Honors
Network Security
Programming Languages Honors

EXPERIENCE

JUMP TRADING | SOFTWARE ENGINEER / TECHNICAL LEAD

July 2021 - Present | Jump Liquidity | Remote, USA

- Led group of 4 developers building and maintaining Jump's bilateral execution platform for trading directly with counterparties
- Redesigned substantial portions of the system to support reliable 24/7/365 operation to enable Jump to serve as a primary LP
- Removed core bottlenecks in order to allow the system to scale horizontally to ensure it was able to handle increasing numbers of orders
- Drove efforts within the dev team and across the larger organization to integrate newer open source technologies in order to reduce operational toil, MTTR and enhance developer velocity
- Added new features driven by business requirements, such as support for new asset classes, order types/fields, and modifying risk checking.

GOOGLE | SOFTWARE ENGINEER

January 2018 - July 2021 | Search Infrastructure | Mountain View, CA

- Worked on the core Search Infrastructure team, which ran search for Google Websearch, YouTube, Google Apps (Drive, Gmail, etc.) and more
- Helped redesign the configuration mechanism in order to greatly simplify the system and decrease time to live while maintaining reliability
- Implemented core components of the new config system, including the standard client library
- Worked with relevant stakeholders such as SRE to drive policy improvements
- Led efforts ensuring that testing setups worked well with the new config system

QUORA | SOFTWARE ENGINEER

January 2017 - January 2018 | Infrastructure Security | Mountain View, CA

- Led Infrastructure Security projects on the Infrastructure team
- Designed, implemented, and rolled out new extensible SSH infrastructure to all developers with minimal interruption to existing workflows
- Leveraged the new SSH infra to require two factor authentication (2FA), central key management, and improved auditability for all SSH connections
- Led infrastructure modernization efforts by pioneering the use of new industry standard technologies such as Docker containers and autohealing infrastructure
- Coordinated with several engineers to enact process improvements for documentation, response, and long term resolution of infrastructure incidents and to improve team efficiency
- Reviewed and provided feedback on proposals for new technical systems from multiple engineering organizations, ensuring the security and reliability of newly built systems

PUBLICATIONS

- [1] Oliver Jensen, Tyler O'Meara, and Mohamed Gouda. "Securing NFC Credit Card Payments against Malicious Retailers". In: *The International Conference on Networked Systems* (2016).
- [2] Tyler O'Meara. *Securing DNSSEC Against State Level Adversaries*. Undergraduate Honors Thesis. Department of Computer Science, The University of Texas at Austin, 2016.