

Josh Seba | Software Engineer

11514 112th PI NE – Kirkland, WA – 98033

☎ +1 (816) 401 2696 • ✉ josh@jseba.dev • 🌐 jseba.dev

Experience

Microsoft

Redmond, WA

Software Development Engineer

2017–Now

Developer for Windows on Wireless Networking and Miracast

- Designed and implemented protocol changes to both Miracast and Miracast over Infrastructure to allow the projecting device to initiate the RTSP connection
- Implemented a backward-compatible upgrade to the Miracast over Infrastructure protocol to allow for stream encryption and PIN authentication
- Worked with hardware vendors to improve the quality of the Miracast ecosystem by diagnosing customer issues and implementing fixes
- Ensured that Windows 10X can be WiFi Certified by updating the Microsoft certification toolkit
- Developed diagnostic tooling to allow customer support engineers to identify common issues with Miracast over Infrastructure deployments in order to reduce escalations
- Assisted with the execution of a stress-testing lab to improve the quality of the Miracast ecosystem

Cboe Global Markets

Lenexa, KS

Software Engineer

2015–2017

Developer on core trading platform using C++ in a low-latency distributed system

- Lead developer on customer order gateway subsystem, responsible for maintaining the APIs used by customers entering over 3.5 billion orders per day
- Mitigated and resolved production system issues in a heavily regulated environment in which time is measured at the microsecond granularity
- Implemented order routing between the Bats markets using Bats' proprietary Binary Order Entry (BOE) protocol to reduce latencies for the over 400 million daily messages by approximately 35%
- Designed and implemented FIX and BOE protocol changes to support the introduction of complex options orders on the Bats options exchanges
- Assisted in the migration of the existing CBOE Futures Exchange to Bats technology by designing and implementing FIX and BOE protocol changes for the order gateway

Skills

Languages: C++17, C, Go, PowerShell

Libraries: Boost, Win32/WinRT

Concepts: OOP, Distributed Systems, COM

Operating Systems: Windows, Linux

Protocols: TCP/IP, 802.11, Wi-Fi Direct, Miracast

Tools: Git, CMake

Education

Missouri University of Science & Technology

B. Sc. Computer Science

Rolla, MO

2011–2015