

Objectives: I'm always curious and driven by a desire to improve myself through productive collaboration in software development. I am customer driven and thrive on a deep understanding of the relationships between products, architecture, and their usage.

Skills and Expertise

Languages: C++ (Microsoft Office & OneNote), C, C# w/ ASP.NET, Python, PHP, and some assembly

Web Services: NodeJS, Python & Django, ASP.NET MVC w/ Entity Framework, REST APIs

Databases: MySQL, Postgres, Mongo, Azure blob storage, various ORMs

Linux: system administration, scripting, service management, postfix, security analysis and update procedures

Networks: 2960S, SG500, QoS, VLANs, Audio-over-IP management

Audio: AoIP (Livewire/AES67), VoIP, Streaming, Yamaha DM1000, Amplifiers

Hardware & RF: Atmel UC3 & FreeRTOS, Arduino, peripherals, RFID, Amateur Radio, Modulation & service monitors

Employment and Entrepreneurship

Microsoft, *Software Development Engineer*, Redmond, WA Summer 2015, Full Time Aug 2016 - Present

- ◆ Design and implement componentized authentication framework for OneNote
- ◆ Define, implement, and analyze authentication telemetry to track user experience and performance of auth system
- ◆ Collaborate and pair program with partner teams to improve optics on and reliability of authentication
- ◆ Design feedback analysis procedure to leverage pre-production deployments of OneNote for quality improvements
- ◆ Meet and engage support team to improve customer support and engineering escalation procedures
- ◆ Implement real-time collaboration telemetry for OneNote to gauge use and efficacy of feature
- ◆ Architect and implement a cloud-based file integrity validator for OneNote through indexing service
- ◆ Set up and run off-campus team events as the morale driver

GE Energy Management Intelligent Platforms, *EID Intern*, Foxboro, MA Summer 2014

- ◆ Developed AngularJS, Java, and SQL stack as part of Agile/Scrum team (mostly middle to back end)
- ◆ Implemented Proxy for routing to multiple web services providing websocket support with SSL termination

Editshare, LLC, *Software Engineering Intern*, Cambridge, MA Summer 2013

- ◆ Architected and implemented a cgroup-based QoS system for disk resource management
- ◆ Implemented a DYLD-based system call shim to “enhance the compatibility of” Apple’s Final Cut Pro software
- ◆ Implemented demo on multiple-tape-spanning LTFS backup implementation

Cartera Commerce, Inc, *Operations Intern*, Waltham, MA Summer 2012

- ◆ Provisioned and managed Linux systems for the company’s online web services through puppet

Education

Tufts University, *MS in Electrical Engineering & BS in Computer Engineering*, Medford MA September 2011 – May 2016

GPA: BS 3.49, MS 3.80

Relevant Courses: High Performance Computer Architecture, Computer Networks, Computer Security, Databases, Computer Engineering, CMOS VLSI, Operating Systems, Biomedical Devices, Power Electronics & Systems

Assistant General Manager & Director of Operations at *WMFO, Tufts Freeform Radio* January 2012-July 2016

- ◆ Maintain & troubleshoot Audio-over-IP network, installed 31TB RAIDZ file hosting for music services
- ◆ Implement archive and streaming services to support on-demand transcoding (see github), implement RDS system
- ◆ Mix local bands for live-on-air and recorded performances

Boston AV Productions, LLC, *Founder and President*, Cambridge, MA April 2013-May 2016

- ◆ Organized and set up an LLC, insurance, and payroll with two other partners and several employees
- ◆ Maintain all company financial accounts and file taxes
- ◆ Fulfill A/V needs for the Tufts campus and Boston area

Personal: VoIP, FreePBX, photography (Speed Graphic & Nikon), drywall, amateur electrician, piano, IEEE Member
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