Matthew E. Olson

1100 University St, Seattle, WA | (303) 514-7424 | molson194@gmail.com | http://molson194.tk | molson194

Experience

Microsoft Corporation
Seattle, WA

Software Engineer - Intune Engineering Systems
2017-Present

- Implemented intelligent test selector reducing test time by 30 mins (400+ times per week) without increasing bugs
- Coordinated upgrade from .NET Framework 4.5 to 4.6.2 across monolith and 59 microservices with zero failures
- Automated testing and updating packages in all repos with 100+ completed pull requests per week
- Created pipeline to deploy multiple instances of a service and route traffic. Used for CI and isolated testing in 20 repos.
- Led infra and engineering systems intro sessions for new hires. Presented for 500+ engineers at Intune hackathon.

Chesapeake Technology International
Denver, CO

Software Engineering Intern - RaptorX
Summer 2015 - Summer 2016

- Created spectrum visualizer and analyzer used by 3 current military projects
- Derived algorithm for cell tower usage and created elements to visualize electromagnetic spectrum

Independent Physics Laboratory
Durham, NC

Memristor and Tunnel Diode Research
2015 - 2017

- Awarded Lord Foundation Grant for $5000 to study memristors. Produced integrated circuit and verified switching
- Derived switching characteristics of stochastic electronic transport and designed switching circuit with tunnel diode
- Published "Scaling properties of noise-induced switching in a bistable tunnel diode circuit" in *Europhysics Journal*

Echostar Corporation
Englewood, CO

Engineering Intern - Failure Analysis
Summer 2014

- Tested and improved the functionality of automated testing devices for digital video recorders
- Found and replaced faulty components on digital video recorders using circuit schematic and multimeter

Secure64 Software Corporation
Greenwood Village, CO

Software Engineering Intern - Gr8Privacy
Summer 2013

- Designed website, presented demos, and raised $1.15 million for file sharing encryption software

Education

Duke University
Durham, NC

Electrical and Computer Engineering (B.S.E.), Physics (B.A.), and Computer Science (Minor)
2013-2017

- Cumulative GPA: 3.8
- Member of Cum Laude Society and Tau Beta Pi Honor Society
- Coursework: Data Structures, Algorithms, OS, Embedded Systems, Computer Architecture, Quantum, Circuits, AI, ML
- Teaching Assistant for EGR 103, CS 250, and ECE 350

Side Projects

- Dare Devil: A social media platform for dares. Facebook integration for friends and Stripe integration for crowdfunding
- Spider: Released to Mac App Store as paid app. 200+ downloads. Simple spider solitaire game. Built in 5 days
- Chess Artificial Intelligence: Python scripts using minimax algorithm and alpha beta algorithm to play chess
- Pipelined Processor: Built in Verilog HDL for FPGA with multiplier/divider, ALU, and register file
- FairFares: iOS app that compares Uber and Lyft surge pricing at your current location. 4000+ downloads
- Smart Mirror: Mirror that displays weather, calendar, and Youtube videos. Group project for Embedded Systems course
- Compiler: Tiger to MIPS compiler written in SML for ECE 553 based on *Modern Compiler Implementation* by Appel
- Stock Prediction: Day-Trading algorithm using LSTM machine learning algorithm to predict intraday stock movement
- 50 Things to Learn Before College: Novel about real-world topics that never come up in class. Currently publishing

Personal

- Hobbies include blogging, philosophy, travel, rock climbing, fantasy football, soccer, basketball, and Ping-Pong
- Duke Basketball fan (tented for 4 weeks), Rubik's cube solver (90 seconds), Juggler, Half-Marathon Finisher (1:31)