Matthew E. Olson

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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
- Relevant Coursework: Data Structures and Algorithms in Java, Computer Architecture, Quantum Physics, Circuits
- Academic Chair of Pi Kappa Phi Fraternity. Member of Club Soccer Team. HackDuke participant

Kent Denver School
Englewood, CO

Cum Laude Scholar, Class of 2013 Math and Science Award *2009-2013*

- Cumulative GPA: 4.3
- Editor-in-Chief of newspaper. Authored 18 articles. Managed 40 members. CHSPC Award.
- Soccer Captain. State Finalist. Deso Leadership Award. All-Conference. 33 career varsity goals.

Experience

Chesapeake Technology International
Denver, CO

Software Engineering Intern *Summer 2015 - Summer 2016*

- Worked on RaptorX, a real-time visualization and control software for military operations
- Derived algorithm for cell tower usage, applied to data in RaptorX, and created elements to visualize electromagnetic spectrum
- Fixed bugs and improved code to improve military control of assets during operations

Echostar Corporation
Englewood, CO

Engineering Intern in Failure Analysis Department *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 *Summer 2013*

- Worked on Gr8Privacy, a file sharing encryption software. Presented demos and helped raise $1.15 million in funding
- Designed and set up web page using WordPress. Found bugs and improvements in Gr8Privacy software

Independent Physics Laboratory
Durham, NC

Memristor and Tunnel Diode Research *2015 - Present*

- Derived switching characteristics of stochastic nonlinear electronic transport and designed switching circuit with tunnel diode
- Tested noise induced switching on memory devices, homemade memristors, and neuronal transport

Duke University Engineering Department
Durham, NC

Teacher's Assistant *2014-2016*

- Led lab, recitation, held office hours, and graded assignments for Computer Science 250 and Engineering 103

Technical Skills

- Java, C, Python, Swift, Objective-C, C++, MIPS Assembly, Matlab, Labview, HTML, CSS, Git, Linux, WordPress
- Graphic Design. Proficient with Illustrator, InDesign, and Photoshop. Made all designs for projects

Side Projects

- Created Dare Devil: A social media platform for dares. Facebook integration for friends and Stripe integration for crowdfunding.
- Relased Spider! to the Mac App Store: Simple spider solitaire game for the Mac. Built in 5 days.
- Southwest Checkin: Python script used to check into southwest flight and get the best boarding position
- Duke Enroll: Automated python script used to enroll a student in classes, so the student gets classes before they fill up
- Pipelined Processor: Built in Verilog HDL for FPGA with multiplier/divider, ALU, and register file

Personal

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