

# Scott McCartney

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## Education

### **Miami University – Oxford, OH, Graduation expected May 2017**

Bachelor of Science in Computer Engineering & Bachelor of Arts in Mathematics

Advisory Board for University Academic Scholars Program

Executive Board member of the Delta Chi Fraternity – Alumni Relations

**2014**

### **Related experience**

- Experience with DSP, Embedded systems, Digital System design, Electromagnetism, Signals and systems, Circuit analysis, Operating Systems, Data structures and abstraction
- Graph theory, Abstract Algebra, Linear Algebra, Probability & Statistics, Discrete Math, Calculus I-III, Differential Equations
- Work in Verilog, Arduino, ANSYS, FPGAs, Java, C, C++, JavaScript, Node, Angular, HTML, & CSS

### **Projects & Research**

- Created a Bluetooth glove to act as a computer mouse • Implemented a gyroscope / accelerometer Arduino sensor to mimic the user's hand movements on the screen
- Researched elastic optical networks and spectrum allocation using simulation software to determine optimal reservation strategies • Read & modified source code written in C++ • Worked with a variety of distinct network and node layouts • Compared methods using First-Fit, forward & backward reservation, flag-based, and weight-based algorithms
- Wrote a DDR/Guitar Hero style game using Verilog on a DE2 board • Game output used the DE2's VGA to connect to a monitor • Two unique levels were created with a partner
- Made an automatic drink dispenser using peristaltic pump, DC power source, and water sensor.
- Built and programmed a Lego Mindstorm robot to navigate obstacles on a track
- Programmed hash table, binary search tree, heap, and graph data structures

## Experience

### **Liberty Mutual Insurance, Intern – IT Mainframe/Hosting**

**2016**

- Created and ran batch jobs in JCL • Learned about IBM mainframe • Modified existing BIRT reports • Converted existing reporting site from PHP to use Node/Angular • Modified Java automator used to run batch jobs

### **Miami University IT, IT Student Support**

**2015 – 2016**

- Worked as first point of contact for faculty, students, and staff regarding IT issues. • Interacted with clients through various mediums like phone, emails, chat • Worked with various Operating Systems and browsers to solve problems in a quick and effective manner

### **Weiss Insurance, Intern**

**2014**

- Oversaw the assimilation of data from an absorbed company • Accompanied assigned agents on sales calls and interacted with clients