

Andrew Ramsey

Education

- Aug. 2014 – Present **Computer Engineering, Rochester Institute of Technology**, Overall GPA: 3.96, Honors
- Digital System Design II with Lab
 - Assembly Language with Lab
 - Circuit Analysis I with Lab
 - Circuit Analysis II
 - Electronics I with Lab
 - Product Innovation

Computer Skills

- Languages: C, VHDL, Verilog, Python, Assembly, LaTeX, Bash
Software: Linux, Vivado, ISE, ModelSim, OrCAD PSpice, Quartus II, GNURadio, Git, Vim
Hardware: FPGAs, SDRs, Cortex-M0+, Oscilloscope, Multimeter, Function Generator
Interests: Hardware Design, Digital Signal Processing, Embedded Systems, Open Source

Jobs

- May 2016 – Present **Computer Engineering Intern, Parsons Corporation**
Designing FPGA programs and software defined radio based applications
- Writing, integrating, and testing prebuilt and custom IP to create a complete FPGA design
 - Generated spec-compliant radio transmissions based on decoded data
 - Replaced GNURadio with a custom, lightweight version using only C
- Aug. 2015 – Present **Teaching Assistant & Mentor, Rochester Institute of Technology**
Assist first-year students in lab exercises and adjusting to college
- Explained digital design concepts in a straightforward manner
 - Rewrote lab handouts to be understandable and self-contained
 - Graded lab exercises and reports

Projects

- Dec. 2015 – Present **Mastermind**
The game of Mastermind on the Freescale Freedom KL46Z
- Designing a PCB to use as an outreach tool for children
 - Wrote mixed C and ARM Assembly to provide software functionality
 - Enhanced the game using RGB LEDs for feedback
- Oct. 2014 – Present **Clue**
An effort to recreate the board game Clue on the computer in C
- Learning how to create complex data structures in C
 - Developed a decision model based on real world experience
 - Self taught graph theory principles
- Nov. 2014 – May 2015 **Freescale Car Competition**
Built and programmed an autonomous car to compete in an international race
- Developed with MATLAB, Simulink, and mbed
 - Learned to work with others' code

Extracurriculars

- Eagle Scout Award, Assistant Scout Master
Contra Costa County Sheriff's Search and Rescue
Launch Initiative – Avionics