Andrew Ramsey

Curriculum Vitae

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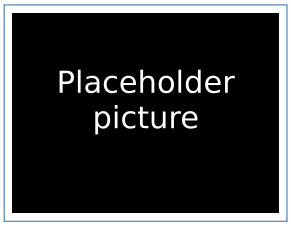
17. October 1995, Los Angeles, USA



Education

Aug. 2014 - Present **Computer Engineering BSMS**, *Rochester Institute of Technology*, Rochester, NY. GPA: 3.97/4, Honors.

Aug. 2010 - June 2014 **High School Diploma**, *College Park High School*, Pleasant Hill, CA. GPA: 4.00/4.

Computer Skills

Languages: VHDL, Verilog, C, Python, Assembly, LaTeX, Bash

Software: Linux, Vivado, ISE, ModelSim, OrCAD PSpice, Quartus II, GNURadio, Git

Hardware: FPGAs, SDRs, Cortex-M0+, Oscilloscope, Multimeter, Function Generator

Interests: Hardware Design, Digital Signal Processing, Embedded Systems, Open Source

Jobs

May 2017 – Aug. 2017 **Research Assistant**, *Technische Universität Dortmund* .
Researched autonomous drone navigation via computer vision and ultra-wideband positioning
- Scaled computer vision-based location using curve fitting
- Achieved autonomous, scale accurate flight using only a single camera
- Overcame language communication barriers to work in an international setting

May 2016 – Jan. 2017 **Computer Engineering Intern**, *Parsons Corporation*.
Designed FPGA programs and software defined radio based applications
- Wrote, integrated, and tested 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

Jan. 2018 – Present **Master's Thesis**.
Exploring compressed sensing and cyclostationary detection for UWB signals
- Implemented cyclostationary detection in software
- Designing compressed sensor to be compatible with an SDR
- Seeks to reduce required computational power for signal identification

Mar. 2017 – May 2017 **Freescale Car Competition**.
Built and programmed an autonomous car, achieving 3rd place in a multi-collegiate competition
- Designed filters to determine line locations
- Developed embedded C code for PID control

Extracurriculars

Jan. 2007 - Present **Eagle Scout, Assistant Scout Master**.
Volunteering with a local Boy Scout troop
- Teach middle and high school boys life and outdoor skills
- Managed other scouts in order to complete projects

June 2013 - Jan. 2016 **Contra Costa County Sheriff's Search and Rescue**.
Volunteered with the sheriff's office to find lost people
- Reunited numerous people with their families
- Saved sheriff's office two million dollars each year
- Trained new recruits to perform their job duties

Languages

English	Native Speaker	
German	Intermediate	*4 years in high school and an immersion in college*
American Sign Language	Beginner	

15. May 2018