

Peter Miller

P.O. Box 143
South Paris, ME
04281

1 (207) 890-4530
millerpa96@gmail.com
pam3815@rit.edu
www.0range.xyz

160 Colony Manor Drive
Rochester, NY
14623

Summary	Electrical engineering student with a focus on digital and computer engineering. Experience with CPU architecture design, microcontrollers, embedded design and system level testing. Available for full time May 2019	
Work Experience	RIT Center for Detectors - Rochester, NY August 2018 - Present Student Software Engineer - Worked on development of a verification and test system for photonic integrated circuits. Created an MSP430 based test module for verification of test equipment. Advanced Micro Devices - Austin, TX January 2018 - May 2018 Co-op Engineer - Worked to set up system level testing (SLT) for Radeon Instinct 7nm GPU. Improved existing SLT tools and streamlined components. Created a tool to make SLT and ATE testing procedures easier to understand and set up. Began thermal evaluations for new GPU. Set up open source iPXE as a replacement for PXE to help solve upcoming compatibility issues in testing. Teledyne Scientific Co. - Durham, NC March 2017 - August 2017 Technical Intern - Further worked to develop and improve MATLAB scripts for bulk image processing as well as for experiment analysis. Trained and helped supervise another intern on use of these scripts. Ran experiments to test and refine software. Helped to prepare slides for review by government. Helped with set up of Nvidia TX1 Jetson development board including compilation of a custom kernel. Teledyne Scientific Co. - Durham, NC July 2016 - August 2016 Software Intern - Worked to develop and improve MATLAB scripts for the automation of bulk image processing as part of a team working on a DARPA project.	
Education	Rochester Institute of Technology Bachelor of Science Degree in Electrical Engineering with Computer Engineering Option (Expected 2019)	
Courses	Digital Systems I & II Embedded Systems Design Design of Computer Systems Operating Systems Advanced Programming	Circuits I & II Electronics I & II Computational Problem Solving Communication Systems Senior Design Project I
Skills	General: Debugging, problem solving, design & verification Languages: Java, C/C++, Assembly, HTML, CSS, JS, MATLAB, VHDL, Verilog Hardware: Altera FPGA, TI MSP430, Arduino, Raspberry Pi, Nvidia TX1	
Projects	0range.xyz -My personal website, developed as a way for me to learn HTML & CSS -Designed to express myself personally and professionally OLLAR & PAM_RISC521 Processors -RISC Processors developed in Verilog for the Altera Cyclone IV & V FPGA -PAM_RISC521 was developed for Design of Computer Systems course -OLLAR (Open-source License Logic & Arithmetic RISC) is being developed as an open-source RISC processor with goals of being easy to modify and understand -OLLAR will be provided with documentation on its detailed workings to aid in understanding to help its potential use as a learning aid. -Both processors can implement multiple cores and a four-stage pipeline. -PAM_RISC521 implements a cache Musical Generator -Written in C++ as a final project for Advanced Programming -Generates music that sounds reasonable -Saves generated music as a MIDI file for manipulation & playback -Wrote my own classes to work more easily with complicated MIDI format @TheOrangeBot -Twitter bot written in Java using Twitter4J library -Read and responded to tweets -Parsed math equations, did some itself, also could use Wolfram Alpha -Used Forecast.io (Now Dark Sky) APIs for weather information IBM PC XT Restoration -Diagnosed and Repaired Motherboard -Installed DOS on Compact Flash card using XT-IDE -Created PS/2 to Serial Mouse Active Converter using Teensy 2.0 -Rebuilt IBM Model F keyboard including replacement of internal foil sheet Satellite Tracking Automated Receiver (STAR) -Multidisciplinary Senior Design Project with the goal to track satellites through the sky and receive their radio transmissions. -Role of communicator on STAR team, and in charge of programming Arduino microcontroller to interface with sensors and motor drivers. -Eliminates need for manual tracking with aero-antenna	
Organizations	Cum Laude Society Boy Scouts Order of the Arrow Eagle Scout RIT Linux Users Group National Society of Leadership & Success	2014-Present 2006-2014 2009-Present 2014 2014-Present 2016-Present
