750 E Marshall St, Apt 306
West Chester, PA, 19380

Paul Kelly

pjk2563@rit.edu
(484) 949-5943

OBJECTIVE

To further develop computer engineering skills and gain professional experience by working in a co-op position in the summer of 2021 from May to August.

EDUCATION

Rochester Institute of Technology   Rochester, NY
Bachelor of Science in Computer Engineering   *Expected Graduation: May 2022*

- **GPA**: 3.71

- **Courses**:

Digital System Design I, II	Computer Science I, II	Digital Signal Processing
Intro to Embedded Systems	Computer Architecture	Applied Programming in C

TECHNICAL SKILLS

Languages: C, Python, ARM Assembly, VHDL, C#, Java, Visual Basic, Smali

Software: Keil, Xilinx Vivado, Altium, LTSPICE, MATLAB, Linux, Vim

Hardware: FPGA, Raspberry Pi, ARM Cortex M0, Teensy, Oscilloscope, Digital Multimeter, Signal Generator, Spectrum Analyzer, VNA/PNA, Solder Iron

EXPERIENCE

Saab Defense and Security   Syracuse, NY
Electrical Engineer Intern   *May 2019 - Dec 2019*

- Verified VHDL modules by generating files of known good inputs and outputs with Python, then writing a VHDL testbench to simulate the module with the test data
- Removed uncertainties in board redesign by creating and running test processes on potential components
- Reduced test times by automatically generating mixer intermodulation tables through instrumentation of test equipment with Python and the NI VISA API

Schlosser Steel Inc.   Hatfield, PA
Computer Technician Intern   *May 2017 - Aug 2018*

- Greatly reduced the time required for accounting to record work hours by automating the timesheet logging system
- Augmented Revit CAD design through plugins and complex element models
- Improved sales estimates by writing a program that generated shop fabrication statistics

PROJECTS

RIT Formula SAE
- Designed a PCB for use in a custom battery management system on the electric car
- Made wireless telemetry possible through an Xbee network transmitting serial messages to a Raspberry Pi running an internet access point with a webserver
- Designed the dashboard PCB to hold a teensy microntroller that managed a TFT screen driver

Boosted Android
- Enabled wireless and USB gadget drivers by pulling LineageOS 16.1 source tree and modifying kernel code
- Ported Hijacker source code to work with custom driver access
- Added custom functionality to apps by reverse engineering compiled apks without source code

MIPS Processor Model
- Designed the instruction fetch, instruction decode, execute, memory access, and write back stages of the MIPS processor in VHDL