
Education

Elizabethtown College | Bachelor of Science | Elizabethtown, Pa

3.41 GPA | 2020

- Majors: Computer Engineering and Computer Science.

Relevant Course Work

- **Engineering:** Calculus and Differential Equations. Circuit Analysis. Electronics. Advanced Computer Engineering. Digital Design and Interfacing. Microcomputer Architecture. Computer Organization and Architecture.
- **Computing:** Computer Science I, II. Data Structures. Database Systems. Systems Programming. Compiler Design. Software Engineering.

Experience

Software Engineer at Lockheed Martin | King of Prussia, Pa

May 2018 – Present

- Working primarily with Software Defined Radios and Java application development
- Created a scalable platform on which C++ based GNURadio flowgraphs can be deployed easily and quickly.
- Working on a large-scale operations and scheduling platform for satellites and other space assets.
- Working on an Agile team, using enterprise-grade tools and platforms

Computer Engineering TA at Elizabethtown College | Elizabethtown, PA

May 2018 – Present

Computer Organization and Architecture, Microcomputer Architecture, Digital Design, Advanced Computer Engineering.

- Working with the professor to create new teaching material and lab projects. Primarily with FPGA's, physical and simulated circuits, microcontrollers, mini PC boards like the Raspberry Pi.
- Creating documentation for devices such as 8051 microcontrollers, Xilinx FPGA's.

Software Developer at Clair Global (Clair Data Systems) | Lititz, Pa

May 2017 – August 2017

- Intern software developer, creating on the spot software for company needs.
- Projects included: Switch auto-configurator, Interactive panel monitoring networking racks, and VPN data collector.

Network Engineering / IT at Coventry Christian School | Pottstown, Pa

2015-2016

Projects

Chocolate Chip | Personal Project

A friendly, easy to read, tested and documented CHIP-8 Emulator. Meant for newcomers to low-level design to be able to easily understand what is happening in a processor in the form of a commonly emulated device, the CHIP-8 Microprocessor.

Otis | Elizabethtown College

An affectionately named neural network platform. Otis was developed by 5 students working as an Agile team where I acted as our Scrum Master. Otis can learn based on data given and make reasonable assumptions about the data. Otis is written in Python, with a full build system, unit testing, documentation, and code coverage plugins.

Vector Array Processor | Elizabethtown College

Along with 2 other students I designed a quad-core 16-Bit processor that supported vector math and basic neural transfer functions along with standard operations for a total of 26 Opcodes. Each core could take an individual code stack and allowed for cross-core data transfer. Designed in Logisim

HomeLab | Personal Project

A continuing project in learning more about networking, systems administration, and servers, I have been working on a home networking setup affectionately named JuiceNet. This setup currently includes 3 Dell PowerEdge 2970's and an HPE DL180. The entire setup runs VMWare ESXi. It currently holds most of my data, a personal web server, a media server, a private git source, VM Testers, a good development platform, and much more

PerfMon | Clair Global

A **Performance Monitor** made for Clair Global to easily monitor the status of a production rack out on production and send back telemetry data. Primarily written in Node.js to run seamlessly on a Raspberry Pi. Created with a team of 2 people with a full-fledged front end and back end. It went on tour with a major music group shortly after.

Skills, Abilities, Other Information

- **Languages:** C, C++, C#, .NET, Bash, Python, VBA, Java, Javascript, Go, Swift, MySQL, HTML/CSS, MATLAB
- **Software:** Word, Excel, Inventor, Adobe Suite, Git, Version One, Visual Studio, JetBrains, Eclipse, Gradle, Maven,
- **Misc. Technology:** Network troubleshooting, Linux, Windows, MacOS, Android, and iOS. System Administration (On both Linux and Windows Server), Graphic Design, Video Editing, Hardware Expertise, Web Design, Embedded Systems, Unit Testing, CI/CD, Agile.

Secret Level Department of Defense Security Clearance