Clay Buxton

(610)-564-2136
clay@clbx.io

Education

Elizabethtown College | Bachelor of Science | Elizabethtown, Pa 3.40 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. Signals and Systems.
- Computing: Computer Science I, II. Data Structures. Database Systems. Systems Programming. Compiler Design. Software Engineering.

Experience

Systems Engineer at **Lockheed Martin** | King of Prussia, Pa May 2019 - Present

- Managing, maintaining, and developing development, support and runtime environments
- Working in a fully developed Windows Server environment

Software Engineer at **Lockheed Martin** | King of Prussia, Pa May 2018 – May 2019

- Worked 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.
- Worked on a large-scale operations and scheduling platform for satellites and other space assets.
- Worked 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, compact, and cycle accurate CHIP-8 Emulator. An entry into the fascinating world of emulation with a simple start. Written in C++ using SDL2.

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 2 Dell PowerEdge 2970's. The entire setup runs VMWare ESXi. It currently holds most of my data, a personal web server, a media server, a private git source, game servers, ad blockers, VPN, Windows Domain Controller, and more.

Skills, Abilities, Other Information

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

Secret Level Department of Defense Security Clearance