Brice Vadnais

http://brice-v.github.io

Education:

B.S. in Computer Engineering (*ABET*) and a Minor in Computer Science
University of Hartford, West Hartford, CT
GPA: 3.73 / 4.0 ***Magna Cum Laude*** Graduation Date: May 20th 2018

Work Experience:

Interim Technical Lead, Quest Global, Windsor CT *July 2019 – November 2019*

- Manage technical aspects of the Digital Solutions Team with the Technical Lead
- Plan allocation of engineers to applicable projects
- Decide on technical design of solution for customer
- Communicate technical decisions and solutions to customers and Digital Team
- Create technical checklists for solution signoff before delivery.

Software Engineer, Quest Global, Windsor CT *May 2018 – July 2019*

- Create software applications for customers using requirements driven development
- Assist customers in using product
- Document the project and manage time over the course of a Statement of Work
- Developed an application to assist with automated reminder emails
  - As part of a cost savings initiative it saved over $1 Million.
- Primary Languages: Python, SQL, HTML, CSS, JavaScript

Critical National Infrastructure (CNI) Intern, PSEG LI, Hicksville, NY *June 2017 – August 2017*

- Built a web application using ColdFusion to track repairs being used in the field and the state of completion
- Assisted CNI group with server maintenance and tracked UPS backups
- Primary Languages: ColdFusion, HTML, CSS, JavaScript

Key Projects:

Programming Language Lexer
Created a lexer for a custom programming language. Scans over input text and emits tokens when a match is made. Well tested, easily extensible, and understandable. Used with LALR parser for custom language.

8-bit FPGA Microcontroller
Capstone project. Designed a custom 8-bit microcontroller to interface with peripheral devices over serial. Simulated and tested using Xilinx ISim and instructions loaded to ROM. Bootloader to load different programs as necessary. Implemented onto a Spartan 6 FPGA.

Instruction Set Simulator and Assembler
A program built in Python to simulate an instruction set for my custom microprocessor. Built an assembler to convert files to s19 machine code that can be run through the bootloader.

Languages Used:

Python 3 | Go | Java 8 | Java 11 | Kotlin | SQL | Nim | C 89/99 | Rust | JavaScript | HTML

Technology Skills:

Object Oriented Programming | Functional Programming | SQLite | Oracle DB | Selenium | Scripting | Ubuntu Linux | Debian Linux | Unix Tools | Windows XP | Windows 7 | Windows 10 | Microsoft Word | Microsoft Excel | Visual Studio Code | Sublime Text | IntelliJ IDEA | PyCharm | git | Mercurial | Fossil | MATLAB | Soldering | Data Structures | Parallel Programming | Assembly | PyQT | Kivy

Technical Experience:

Piece Chain Data Structure
Researched how the data structure operates. Compared its benefits in regards to text editors versus other text buffer data structures. Implemented in Go for use in a Go text editor. Extensible and well documented.

Computer Hardware
Knowledge of all the components that make up a computer. Built and constructed computers for personal use and for friends. All started successfully and have worked consistently. Engineering background furthered knowledge and comprehension on computers.