

Joshua Baker

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Education

The University of Vermont

Computer Science, B.S.

- Graduate Certificate in Computing: Cyber Security

Burlington, VT

Graduation Date: December 2022

March 2022

Experience

Northern Digital Inc.

Software Engineer Intern

Shelburne, VT

May 2022 – Present

- **Calibration Adapter Qualification Testing Program - Python, C++, DOS**
Develop automated data analysis tool for testing accuracy within .01 mm of calibration adapters used by manufacturing team in production of every new sensor
- **Database and Report Manager - Python, SQLite**
Implement database to store and manage over 2,000 verification test reports taken from European manufacturing team's daily test procedure
Design headless software to analyze database inputs and raise warning notifications for tests that fail inspection
- Use Jira in hand with agile methods to track progress and manage steady workflow with engineers in CI/CD environment

Information Security Office at the University of Vermont

Identity Management Support Specialist

Burlington, VT

November 2021 – May 2022

- **Intrusion Detection System - JavaScript, AJAX, Python**
Developed intrusion detection tool to suppress account threats by tracking updates and evaluating risk of mail security configurations
- Conducted security analysis of digital framework and consolidated breaches to security of system with 50,000+ users
- Facilitated technical support and access management on Linux system to UVM community members

Skills

C++, C, Linux, Python, Java, TCP/IP, AWS, SQL (Oracle, MySQL, PostGres), REST API, JSON, JavaScript, HTML, AJAX, Github, CI/CD, Jira, Confluence, Object-Oriented Programming, Operating Systems, Data Structures and Algorithms, Network Security

Relevant Courses

Computer Programming (Courses in Python, Java, and C++), Data Structures and Algorithms, Operating Systems, Computer Organization, Network Security and Cryptography, Database Systems, Cybersecurity Defense

Projects

Catamount Crypto - HTML, JavaScript, Python, SQLite

- Banking website for accessing and transferring blockchain cryptocurrency built using SHA-256 hashing algorithm, with added security features of end-to-end encryption, secure login and site reliability testing
- Used WireShark for analysis of local network traffic security

Audio Frequency Spectrum Analyzer - RaspberryPi, Java

- Program to capture Fast-Fourier Transform from .WAV file input and display frequency presence via interactive GUI on Raspberry Pi

C++ Interactive Instrument Machine - C++, Python

- Used OpenGL and GLUT to create interactive and customizable instrument machine for playback of self-produced track elements