Aidan Brown

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https://retro-guitars.herokuapp.com/

EDUCATION

August 2020- May 2023

THE UNIVERSITY OF VERMONT, Burlington, VT
Bachelor's of Science in Computer Science (Completed in Three Years)
The Honors College - Climbing Team - CS Crew (Active Member)

EXPERIENCE + PROJECTS

SOFTWARE/IOT INTERNSHIP

UNILEVER - BEN & JERRY'S ***June - August 2022***

- Developed and sustained H2Ok spectrometer sensors and Raspberry Pi Devices, ensuring optimal performance and accuracy
- Utilized knowledge in PLC Programming to integrate spectrometer sensors into the Ben & Jerry's PLC system, utilizing Structured Text language
- Collaborated with local contractors and employees to ensure effective corporate connectivity through IT Server and Firewall Handling
- Utilized technical knowledge to design and deploy a web proxy for easy access
- Worked in an industrial factory setting, collaborating remotely and in person with team members
- Performed integration of Google Cloud with H2Ok Innovations to improve efficiency

WEB DEVELOPMENT

SKI MOUNTAIN CALCULATOR ***April - May 2022***

- Developed a ski mountain-generating website for UVM students utilizing C++, PHP, HTML, and CSS
- Implemented a weight-based algorithm for accurate mountain generation and customization
- Generated the ideal ski mountain in Vermont based on a thorough survey and analysis of topographical data and customer preferences
- Collaborated with GitHub

WEB INSTRUMENTS MARKETPLACE ***November 2022***

- Developed an e-commerce platform for musical instruments utilizing Python, Flask, MYSQL, JavaScript, HTML/CSS, and AWS.
- Collaborated with a team of four members on a project utilizing Agile methodology
- Acted as back-end engineer and Flask specialist in a team-based environment

PERSONAL PROJECTS

ROCK-CLIMBING SORTING PROJECT ***October 2021***

- Implemented data structures and algorithms to effectively sort a large dataset of the top 1000 climbing routes in the US, including separate chaining, linear probing, and bubble sort.
- Learned the efficiencies, versatilities, and drawbacks of different sorting algorithms and data structures
- Developed with object-oriented programming in C++

C++ ARCADE SIMULATOR ***April - May 2022***

- Developed with C++ with OpenGL to create an arcade interface with games like Snake, Doodle Jump, Flappy Bird, and more
- Leveraged Git and GitHub to facilitate efficient collaboration with peers.
- Produced a simulator that runs on MacOS and Windows
- Succeeded in creating a fun and interactive system with a small team

SQLITE QUERY PROJECT ***September 2022***

- Created a query language with a rock-climbing routes and mountains dataset
- Built a Python and SQLite program to respond to user queries
- Developed with a small team using Git and GitLab
- Learned general SQL database syntax and functionality

TEACHING & MANAGEMENT

TEACHER'S ASSISTANT CS124 & CS021 ***January 2021 - May 2022***

- Assisted students taking C++ related coursework
- Improved C++ skills by teaching others

ADDITIONAL SKILLS AND COURSEWORK

Algorithm Design and Analysis - Cybersecurity Defense - Evolutionary Robotics - Database Systems - Object Oriented Programming - Data Structures - Linux - Computer Security Foundations - Cloud Integration - Operating Systems - Advanced Programming: C++ - Intermediate Programming: Java - Data Structure and Algorithms: C++ - Computability and Complexity - Cybersecurity Law and Policy - Computer Organization (hardware) - Linear Algebra - Discrete Structures - Calculus I, II, & III - Statistics

LANGUAGES AND TECHNOLOGY

C++ - Python - Flask - Java - C - MySQL - GIT - GitHub - JavaScript - HTML - CSS - Rasbian - PLC - PHP