Bob Wei

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SKILLS SUMMARY

- Python
- C++
- Unity3D
- Blender
- Git
- JavaScript
- Android Studio
- Java

Work Experience

Embedded Software Developer | Waterloop
September 2017 – Current

- Increased the efficiency of the Arduino architecture in the hyper-loop pod, specifically designing and writing the C++ library code responsible for string manipulation and memory management
- Worked together with others from the embedded systems, communications, and hardware teams to discuss and decide on system infrastructure, software compatibility, and specific hardware specifications
- Improved the data transfer process between the hyper-loop pod and the final user interface through the use of Python for parsing/preparing the raw data coming from the various temperature, pressure, and proximity sensors

Physics Research Assistant | Brock University
June 2016 – June 2017

- Developed Python programs for material physics research conducted at Brock University
- Automated data collection involving oscilloscopes, piezoelectric sensors, and accelerometers, significantly improving the efficiency of such experiments. Increased accuracy of experimental results through frequency optimization algorithms
- Presented research conclusions and implications at the Canada Wide Science Fair, receiving Bronze Medal honors and scholarship recognition from Western University and UOttawa

EDUCATION

University of Waterloo
Bachelor of Software Engineering

September 2017 – June 2022

Projects & Other

Unity3D Game |
2016 – 2017

- Developed a 3D platformer game for both Android and iOS platforms.
- Features endless dynamic gameplay through procedural path generation, object oriented programming, and randomization algorithms (Perlin Noise)

Raspberry Pi Coding Assistant |
2017

- A voice assistant developed specifically for the needs of those learning C programming and basic programming concepts
- Includes functionality for pulling code excerpts and concepts off the internet and for editing/compiling C files

miniML Sign Language App |
2017

- Developed a proof of concept for an American Sign Language recognition mobile app, specifically using the Darknet Neural Network, written in C. for training data
- Submitted as a group project for Hack the North 2017

Academic-related Experience |
2015 - 2017

- Competed in the 2017 Canadian Computing Competition using Python, achieving the highest score in the District School Board of Niagara
- Implemented a Java 2D graphing software in order to help students in high school level advanced functions and calculus courses
- Studied C in the CS137 course as well as Python and Java throughout my high school computer science courses

INTERESTS

- Rowing (Crew)
- Personal Training
- Basketball
- Project Design
- Computer Hardware
- Graphic Design