

William O'Malley

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EDUCATION

Purdue University

Bachelor of Science

- Computer Science, Concentration: Software Engineering

West Lafayette, IN

August 2015 – December 2018

PROFESSIONAL EXPERIENCE

Aptiv West Lafayette Verification Lab

Software Verification Engineer

West Lafayette, IN

May 2018 – Present

- Supported the forward progress of software programs used for verification
- Tested automotive systems using serial bus communications in conjunction with in house developed programs
- Collaborated with software verification engineers to ensure product quality, performance, scalability, and functionality
- Assisted the development of a custom shell to communicate between hardware and software using Microsoft's .NET framework

PROJECTS

Bluetooth Receiver

- Used python and ARM to program a microcomputer to act as a Bluetooth receiver for wireless audio streaming through a car's infotainment system

Bartr Website

- Bartering website for small communities that does not force users to buy website currency
- Aided in the design and growth of the user interface by employing React and Redux
- Managed front-end automated testing with Cypress and Jest

Smart Mirror

- Constructed and programmed a smart mirror that displays weather, time, news headlines, and Google Calendar using APIs and a Raspberry Pi

Linux Shell

- Implemented a scanner and parser for the shell using LEX and YACC
- Developed Linux shell using C with the functionality of a Bash shell

TwoSense Website

- Developed to determine a user's eye and hearing quality
- Used Firebase realtime database to store user credentials and collected data
- Built the hosting of the site through Firebase and GitHub Pages for future scaling

LiveLyrics Website

- Produced to store Spotify lyrics and add lyrics based on the current song playing on Spotify
- Used Python with the Flask microframework to store song information and lyrics

TECHNICAL SKILLS

Languages: Java, C, C#, C++, JavaScript, SQL, Python, R, ARM

Software / Tools: Git, Vim, Unix/Linux, IntelliJ IDEA, Visual Studio, Android Studio, GDB

Technologies: Firebase, React, Flask, GitHub Pages, Heroku

Areas of Knowledge: Systems Programming, Computer Architecture, Shell Scripting, Data Structures and Algorithms