David A. Wing wing.49@osu.edu (614)327-6763 github.com/hyperwing

Education

The Ohio State University, B.S., Computer Science and Engineering, Honors and Scholars expected 2020

Honors

Dean's List for Engineering Students 2016-2017
Morril Excellence Scholarship 2015-2020
Engineering Dean's Scholarship 2015

Work Experience

Capital One, McLean, VA 5/19-8/19
Technology Internship Program - ATM Division
Technologies Used: Python, C++, Wireshark, XFS-CEN API
Reverse Engineered USB Drivers for ATMs and wrote custom USB drivers. Created a script to run API calls from XFS-CEN API. Collected USB packets using the script from the ATM with Wireshark. Reverse engineered the USB signals to be able to run arbitrary code on the ATM and create custom drivers in Python. Wrote an automation testing framework for testing of all ATM hardware.

Asurion, Nashville, TN 5/18-7/18
Software Engineering Intern - Sub-billing Division
Technologies Used: Node.js, Python, Mocha, AWS, JavaScript
Worked with back office transactions, streamlining account processing by creating internal tools in Node.js and Python. Created transaction records and histories for accounts by combining and inferring existing data. Wrote a unit test suite in Mocha for all of my tools and resolved critical issues in existing AWS applications. Led a team presenting a technical business case on new LOBs to executives at Asurion.

Innovative Systems, Pittsburgh, PA 5/17-8/17
Software Engineering Intern - R&D Division
Technologies Used: Java, VB.Net, SQL Server, Oracle
Created tools used in the daily deployment of database updates and migrations. Converted several stored procedures into a more extensible format. Used industry software design practices and documentation. Envisioned and developed a cohesive product that is currently in production use. Using Visual Basic, SQL Server, Oracle and Java, the product took user instructions and ran through a complex procedure to transfer data.

The Ohio State University, Columbus, OH 4/16-11/16
Student Information Technology Worker- Chemistry Department
Technologies Used: Powershell, Raspian, RedHat, Windows
Created deployment packages for software across the department. Created scripts in Powershell deployed for use for software automation across the department. Worked with RHEL as a system admin and OS deployment, and Raspian for hardware and software deployment.

Software Projects

Inter-collegiate Programming Competition
Competed in an algorithmic programming competition for college students. Represented Ohio State in the East Central Conference Event and placed in top half of participants.

OHI/O Hackathon
Created an Angular application that acts as a driving companion app for cars that tracks fuel efficiency and other metrics pulling from internal device components for a Honda challenge.

FIRST Robotics Team - Programming Division
Worked as the lead programmer on the varsity robotics team. Used LabVIEW to create code for a robot that utilized a variety of mechanisms, such as pneumatics, CIMs, and real time field tracking using the Kinect. The team advanced to the highest stage of the competition, and performed in the top half of the participants.

Unity3D Game Development
Technologies Used: C#, TypeScript
Developed several Unity3D games for Android, Windows and Web Browsers. One game was a platform side scroller, featuring unlimited tile generation and score keeping along with various powerups, each influencing the run of play. Ended with limited release on the title.

Android Development
Technologies Used: Android Studios, Java
Developed several native Android applications as proof of concept ideas, or as learning tools. Applications created for hackathons.