WILLIAM CARROLL

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Permanent Address
111 Gentle River Road
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SKILLS AND QUALIFICATIONS

- *Languages* – Python, C#, C/C++, HTML/CSS/JavaScript, Verilog
- *Electronics Design* – RTL Design, Embedded Control Systems, PCB Design (Coursework)
- *Embedded Systems* – Embedded Windows, PIC24/dsPIC33 Platforms, Cypress ARM SoCs, Embedded Python
- *Frameworks and APIs* – .NET Framework, Entity Framework, Flask/SQLAlchemy, Linux, WCF, WPF
- *Technologies* – Linux, Web APIs, Socket Programming, Embedded Firmware

References and code samples available upon request.

EDUCATION

Mississippi State University, Starkville, MS
Bachelor of Science, Computer Engineering, May 2019
Accelerated Graduate Program, Masters of Science, Signal Processing, May 2020
GPA: 3.66/4.00, Dean's Scholar, Shackouls Honors College *Fall 2014 – Present*

Current Major Coursework: Senior Design I, Technical Writing, Digital Signal Processing

RELEVANT WORK EXPERIENCE

***Undergraduate Research Assistant,* Mississippi State University, MS** *Fall 2018 – Spring 2019*

- Assisted with wearable technology research led by Dr. John Ball.

***Software Development Lead,* Glaance LLC, Starkville, MS** *Fall 2017 – Spring 2018*

- Led six-person team in development of a scalable JSON Web API in Python using Flask/SQLAlchemy with a cross-platform front-end application built on Apache Cordova.

***Aircraft Engineering Co-op,* FedEx Express, Memphis, TN** *Summer 2016 – Spring 2017*

- Flight Data Upload Utility - Designed and deployed C#/.NET software system for aircraft mechanics to remotely upload recorded flight data for safety and reliability analysis over the Internet (instead of mailing flash storage cards).
- Flight Data Reader/Parser – Wrote C# software library for reading and analysis of stored aircraft data streams supporting automated analysis of saved flight recorder data allowing automatic safety checks and aircraft reliability analysis.
- Aircraft Software Distribution System - Redesigned and replaced global software distribution system for aircraft system software updates and flight-critical documents for Electronic Flight Bags (EFBs) using C# and .NET Framework.
- FedEx Bravo Zulu Award – Received recognition award for work on the aforementioned software systems and for assistance in a cybersecurity-related emergency that occurred while employed.

Personal/Educational Projects

- ECE Senior Design – Designed and built an electronic golf glove to track and analyze the user's golf swing by measuring wrist rotation and inflection alongside inertial data.
- Class Seat Notifier – Developed Python application to fetch the Mississippi State course catalog and notify users via text message when a seat is available in a given class section.

ORGANIZATIONS AND ACTIVITIES

***Core Team Member (Tech),* MSU Wesley Foundation** *Fall 2018 – Present*

- Coordinated technical volunteers for events and maintained audio/video systems.

***Main Camp Counselor,* Camp Lake Stephens** *Summer 2018*

- Led campers in outdoor summer camp activities and exercised teamwork and leadership skills with other staff.

***Electrical Section Lead,* MSU Formula SAE Team** *Fall 2014 – Spring 2016*

- Design and construction of electrical and engine management system on student-designed vehicle as well as support at competition each year at Michigan Intl. Speedway.

***Leadership Team Member,* MSU Wesley Foundation** *Fall 2015 – Present*

- Collaboratively planned events and provided live sound support for events.