# **Drake Bolland**

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Local Address: Permanent Address:

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## **EDUCATION:**

# **Bachelor of Science in Electrical Engineering**

Mississippi State University, Starkville, MS. May 2019. Overall GPA: 3.56/4.00

### **EXPERIENCE:**

# **Engineering Intern**

Kopis Mobile, Flowood, MS, May 2018 – August 2018

- Wrote testing scripts and unit tests for existing EARS project demo
- Architected a hardware/software solution for a custom magnetic security door system
- Sketched circuitry for security door system using OrCad Schematic and PCB Editor
- Wrote software to be used with security door system using Python
- Used MQTT protocols to communicate between the security door and a Home Assistant server to monitor and record people entering the facility
- Modified existing boot services and timers in Linux
- Wrote software to organize android devices in a testing area based on user-input criteria

#### **Electrician Intern**

Steel Dynamics Inc., Columbus, MS, January 2016 – December 2016

- Updated electrical drawing schematics using AutoCAD
- Implemented multiple PLC program solutions to in-use systems, eliminating repeated faults
- Designed metal components in SolidWorks to overcome present engineering challenges
- Developed a C++ program to automate the analysis and organization of trended system data
- Analyzed trended system data and altered the application process of the Roll Gap Lubrication (RGL) system, reducing standard deviation of efficiency from 25% to 5%

### **Engineering Assistant**

Kopis Mobile, Flowood, MS, May 2015 – August 2015

- Designed test bench for the Mapping & Multimedia Radio Infrastructure System (MMRIS)
- Established and fully documented the process for construction of test benches
- Modeled and 3D printed parts for multiple projects using SolidWorks
- Analyzed problems and implemented improvements to a CNC Drill Machine, reducing system failures to 0%

#### SKILLS:

- Advanced ability in SolidWorks and soldering
- Well versed in C++ programming, Python, unit testing code, and trended data analysis
- Intimate knowledge of 3D printer and CNC machine hardware/G-code integration
- Knowledgeable in PLC programming and PLC components (Siemens and Allen-Bradley)
- Abled in Cadence Capture and PCB Editor software