## **EDUCATION**

**Drexel University** Jun 2022 Bachelor of Science, Major: Electrical Engineering | Minor: Computer Engineering Philadephia, PA

Cumulative GPA: 3.63

# **SKILLS**

• Programming language: JavaScript, Java, Python, C, Bash, C#,C++.

- Framework: SpringBoot, React.js, Express.js, Node.js, Django, Flask, Terraform.
- Technology: VSCode, Git, IntelliJ IDEA, Postman, MongoDB, Oracle SQL, Amazon Web Services (AWS), MySQL, Docker, Kubernetes.

# EXPERIENCE

### Electrical Engineer (Distribution Automation group) - Delmarva Power & Light Co

• Programming data concentrator and SCADA (Supervisory Control and Data Acquisition) master to to monitor and control intelligent electronic devices (feeders, breakers and reclosers).

- Drawing plan of deployment for reclosers in FLISR scheme using Visio.
- Generating Python script that parses health report xml files and uses DFS (depth-first-search) algorithm to get all targeted xml tags from the file.
- Integrating the parser to existing ETL (Extract, Transform and Load) script to populate in Microsoft SQL database a table containing all devices with health issue found from the xml file.
- Referencing AF SDK to generate C# script that queries current and lookback values from Pi Tags over 4000 Electronic devices in the fields and populates these values into tables in Microsoft SQL database for analysis.

#### Software Engineer Intern - Two Six Technologies

- Implemented a new parser into existing backend system in Java to parse messages sent from sensor network.
- Worked with other team members to document and update the test plans to ensure a successful release.
- Integrated AWS Batch service as a scheduling tool for export feature in an UI of an application in the company.

### System Operation Support Engineer Co-Op - Delmarva Power & Light Co

• Migrated over 500 outage requests from old to new outage application to support System Operations Engineer and Outage Coordinator in Delmarva and Pepco OpCo.

- Updated equipment ratings in EMS to maintain service during extreme weather condition.
- Modified VBA script that validates actual current ratings of over thousands of devices in EMS system against standard equipment rating table, the script can generate a batch file to apply updates of flagged devices into EMS.

#### QA and Software Engineer Co-Op - American Water Works

- Collaborated with other software developers to build a water meter testing application.
- Formulated Java scripts for unit testing and automation validation.
- Developed an algorithm to compare 2 endpoints of the company application utilizing LoDash library in JavaScript.
- Administered all system errors in the application for record keeping.

# PROJECT

## Sensors Monitoring Web App

• Collaborated with engineering students to create a Web app that monitors temperature and humidity sensor (BME280) and controls color sensor (TCS34725FN)

- Programmed a client server ESP32 using Arduino IDE that takes readings from sensors and sends POST requests to an API.
- Integrated REST API using Spring Boot that stores data from ESP32 to PostgreSQL database and receives requests from user to control LEDs/sensors in circuit.
- Designed a simple web UI using HTML/CSS that allows user to input values and send the requests to the API and monitors sensors reading retrieved from the database.

### Pretty Simple SHell (pssh)

• Developed a simple shell program that is similar to bash and zsh in C.

- The shell can run a single command or multiple pipelined commands with optional input and output redirection.
- Implemented 'kill' command that send signals to specific processes and jobs.
- The shell can suspend the foreground job, continue a stopped job or start a job in the background.
- All jobs status can be checked with 'jobs' command integrated into the shell.

### Trapped on an Island

- Built a text based game simulator in C++ that utilizes locks and condition variables in multithreading programming to solve resource management problem.
- The program's job is to get all the people off the island and back to the mainland.
- Each thread will represent either an adult or a child trapped on an island, one shared boat will be the shared resource.

Aug 2022 - present

Wilmington, DE

Mar 2022 - Jul 2022

Mount Laurel, NJ

Mar 2021 - Sep 2021

Wilmington, DE

May 2020 - Sep 2020

Camden, NJ

May 2022

Philadelphia, PA

Mar 2022 Philadelphia, PA

Dec 2021

Philadelphia, PA