Cody Tran

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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) - Exelon Pepco Holdings Aug 2022 – present
Wilmington, DE
- 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 Mar 2022 – Jul 2022
Mount Laurel, NJ
- 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 - Exelon Pepco Holdings Mar 2021 – Sep 2021
Wilmington, DE
- 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 May 2020 – Sep 2020
Camden, NJ
- 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 and controls color sensor.
•Programmed a client server ESP32 using Arduino IDE that takes readings from sensors and sends POST requests to the API.
•Designed REST API using Spring Boot that stores data sent from ESP32 to PostgreSQL database and receives requests from user to control LEDs/sensors in circuit.

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.

Lossless Data Compression Tool
•Developed a C program that applied Huffman Coding algorithm to encode and decode of a given text file.
•Implemented a min-heap as a priority queue and a binary search tree (BST) as the underlying data structure to be used in the Huffman Algorithm.
•Parsed the binary search tree to generate a Huffman Code table, where each character is assigned a binary code and stored it in the hash table.
•Parsed the text file and encoded the text in binary using the Huffman codes that were saved on the code table.
•Read the Huffman code table and the encoded text file, parsed it by going through the Huffman tree and decoded the characters in file.