JOSE LEVEL

Florida International University | BS in Computer Engineering | Expected graduation: December 2020.

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Work Experience

Embedded Software Intern, Motorola Solutions — Jun - Aug 2020

- Devised and engineered makefile command-line options to conditionally compile radio source code depending on whether it's a test or release version to increase safety and streamline software releases.
- Fixed bugs in an agile environment ranging from buffer overflow to higher-level logic in radio debugger commands.
- Performed "Voice of Customer" visits with Baltimore City FD to analyze feedback on prototypes for the next generation of FireFighter and EMT radios.

Software and Electronics Co-Op, GE Appliances — Jan - May 2019

- Developed Python script to interpret raw touch sensor data and turn it into usable data for establishing spec standards and calibrating parts from different vendors for the hardware UI team.o
- Designed capacitive touch testing rig and improved testing procedures for new product UI by creating an automated 3-axis button-pusher, saving money in testing equipment & labor costs for new UI boards.

Engineering Consultant, Eco-Tabs — June 2018 - Jan 2019

- Reduced the company's large labor cost and overhead by leading the design and implementation of an automated dispensing system for bio-waste management tablets to reduce harmful H2S gasses in wastewater.
- Created a rugged system for the testing and deployment of the product in various real-world environments.

Prototyping and Design, Only About Innovation (Part-time) — May 2016 - Present

- Worked with business executives in critical distributor business expansion deals and spearheaded the design of the newest product prototype of autonomous pool surface cleaners.

Projects

IoT Bar Management System, FIU (Senior Design Capstone Project) — Sep 2019 - May 2020

- Acted as the project manager and team lead on the hardware integration and software architecture of a 4 person team by presenting the use of GitHub, and the agile methodology to establish a CI environment.
- Personally developed software features such as Twilio SMS API integration and data dashboards/analytics on the Losant IoT platform while working together to develop the embedded software and PCB design with the team.
- Led customer interviews and consolidated customer feedback to define the scope and timeline for our embedded beverage inventory system which provides real-time, cloud-based data visualization on consumption in bars.

Shell Hacks, FIU (1st Place Hardware Hack, 3rd Place Overall) — Sep 2018

- Used an embedded microprocessor and infrared sensors to monitor a fish's movement within a small tank and actuate motors accordingly to move the tank in the direction the fish swims.
- Used a smart sensor array to coordinate LED signals with movement and record location and inertial data.

Smart Mood Lighting System — May - Sep 2017

- Developed a lighting system using LED arrays to vary color palettes based on time of day and current season.
- Integrated between Raspberry Pi, PWM drivers, and custom circuits to deliver optimal lighting.

Technical Skills

Degree concentrations: Data Systems Software, Embedded Systems, and Computer Design.

Skills:

- C/C++, VHDL, Java, and Python.
- English and Spanish (Completely bilingual).

Relevant Software and Coursework:

- Jira, Git, Bitbucket, Vivado 2019/Xilinx ISE, SolidWorks/ Inventor, MultiSim, LT Spice, KiCad, Fritzing.
- RISC/Microcomputers 2, Data Analysis, Embedded Systems, Telecom Networks, IoT Network/ Security, Programming 1-3, Data Structures, Linear Systems, Circuits.