Jonathan Go-Oco

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EDUCATION

B.S. Computer Engineering August 2021
San Jose State University, San Jose, CA

SKILLS

Programming Languages: C, C++, C#, Arduino, Python, Java
Operating Systems: Windows, Linux, Raspberry Pi
Tools/Technology: HTML, CSS, Visual Studio Code, Arduino IDE, Git
Relevant Coursework: Programming Concepts and Methodology, Object-Oriented Concepts and Methodology, Engineering Reports, Engineering Statistics, Assembly Language Programming, Algorithms and Data Structure Design, Differential Equations and Linear Algebra, Advanced Algorithm Design, Software Engineering I, Compiler Design, Operating Systems Design, Computer Networks, Computer Architecture and Design

EXPERIENCE

Automated Manual Bench Testing Summer Intern, FormFactor Inc., Livermore, CA May 2019-August 2019

- Repurposed an engraver into a prototype of a manually automated probe card bench test gantry
- Rewired engraver to move through stepper motors controlled by Arduino Mega 2560
- Developed program through C# that takes resistance reading of Probe Card Micro Springs from a digital multimeter and output data to a Windows Form
- Tested gantry's utility for manually automated probe card spring replacement
- Documented process for creating gantry and programs for future project reference
- Awarded Best Presentation by FormFactor CEO Mike Slessor at the end of Internship

PROJECTS

TempSense Senior Project January 2021-August 2021

- Collaborated in a 4-member group to create an affordable Internet of Things (IoT) system in response to the Covid-19 pandemic that recorded the heart rate, blood saturation, and body temperature of a client to be displayed on the TempSense mobile application
- Implemented the body temperature sensor using Arduino to record the data to send over serial communication to a Raspberry Pi
- Coded an HTTP Post Request in Python to store the body temperature data to Google Firebase for the TempSense application to acquire the data to display on the mobile application
- Served as the direct line of communication with project advisor via email to receive feedback and inform on updates of the project deadlines

FreeRTOS MP3 Project January 2021-May 2021

- Collaborated in a 3-member group to create an MP3 player using a class-provided C-programmed FreeRTOS Microcontroller board
- Extracted MP3 audio files from an onboard SD card to be decoded using an external MP3 decoder via SPI communication and GPIO pins
- Coded various FreeRTOS tasks in C to read MP3 files, play and pause MP3 files, choose which MP3 file to play, increase and decrease the volume, bass, and treble levels
- Displayed current song and song metadata on an external LCD screen receiving data via UART communication and GPIO pins

IoT Smart Camera with Raspberry Pi March 2021-May 2021

- Worked with a 3-member group to train a Raspberry Pi to recognize a face from a picture
- Coded Python scripts to automatically send captured images to group-owned AWS S3 bucket for storage