Andrew Lin

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Work Experience

Systems Engineer Intern - *ENDEAVR Institute (College Station, TX)* 09/01/2021 - Now
- Developing data analysis tools in C to assist in observing patient readings (e.g. blood pressure, pulse, blood oxygen levels, and temperature).
- Constructing hardware systems that take in multiple readings to display online via microcontroller
- Programmed in C for Arduino to transmit biometric data with use of port programming in Python

Education

Texas A&M University, College Station, Texas Expected: Spring 2023 *(Senior)*
B.S of Electronic Systems Engineering
Relevant Courses
Data Structures and Algorithms, Microcontroller Architecture, Advanced Network Systems and Security, Embedded Real Time Software Development

Projects

Face Tracking Project (Summer 2022)
Developed a program that detects faces using OpenCV and transmits data through port programming on Python onto a microcontroller that moves the camera with the user's face.
- Programmed in Python and C++ for Arduino to communicate through port programming.

Discord Bot Development (Summer 2022)
Developed a Discord Bot that managed user roles in a server of over 100 users. The bot also interacted with users given certain messages and commands. The Bot was hosted using the .NET framework tool.
- Programmed using Python to respond to keywords from users by either text or image links. The bot also responds to other user activities such as joining the server.

RTOS Temperature LED Project (Spring 2022)
Constructed a microcontroller system that manages 4 LEDs and their blink rates. The LEDs are controlled by several inputs: switch toggles, temperature changes, and console tasks. The program contains 4 running tasks.
- Developed an RTOS program in C using major Kernel construct tools to send inputs to microcontroller
- Wrote a script for a console task using UART in C for 6 commands with one in particular to log 50 temperature readings.

Multiplayer PC Game (Summer 2020)
Developed a multiplayer PC Game with a team of 3 that involved spells, item drops, inventories and monsters using Unity game engine.
- Implemented inventory systems, animations, and multiplayer functionality in C#.
- Hosted game using Unity's PUN(Photon Unity Networking) library as our multiplayer framework.

Skills

Languages: C++, C, Python, C#, JavaScript, LabVIEW
Technical Skills: Data Structures and Algorithms, Embedded Systems Software (C/C++), Object Oriented Programming, RTOS

Certifications and Awards

- ENDEAVR Best Project Award
- ENDEAVR Smart City Certification
- Lean Six Sigma - Yellow Belt

Activities, and Interests

- Activities: Video Game Design, 3D Modeling, 3D Printing, Circuit Design
- Interests: Medical Devices , Software Engineering, Embedded Systems Software