# **Andrew Lin**

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## **Work Experience**

Systems Engineer Intern - ENDEAVR Institute (College Station, TX)

09/01/2021 - Now

Expected: Spring 2023 (Senior)

- 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

**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 an microcontroller that moves the camera with the user's face.

Programmed in Python and C++ for Arduino to communicate through port programming

#### **Embedded Systems Project (Spring 2021)**

Constructed a microcontroller system that responds to user inputs on the computer through the LCD screen, motors, and sensors using UART serial communication.

- Wrote a script that sent and received signals to the microcontroller pins to perform tasks involving the rotation of servo motors, display of LCD screen, potentiometer readings, and motion signal detection.
- Constructed switch cases in embedded C that allowed the user to use a menu to communicate with the microcontroller

#### **Multiplayer PC Game (Summer 2020)**

Developed a multiplayer PC Game that involved spells, item drops, inventories and monsters.

• Implemented inventory systems, animations, and multiplayer functionality in C#

#### **Discord Bot Development (Fall 2019)**

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.

• 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.

#### **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