Andrew Lin

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Experience

Software Engineer - L3 Harris Technologies (Londonderry, NH) 06/2023 - 05/2025

- Collaborated to implement camera features, allowing goggles users the ability to view external video from a thermal weapon sight. Implemented, and debugged event handling in **C** and **C++** on the radio side of the goggle system based on data transmitted.
- Simplifying workflows for **Android Team Awareness Kit (ATAK)** users by directly communicating with a goggle without a systems manager app. Implemented data parsing onto L3 Harris goggles to directly receive data from the ATAK app. Optimized memory allocation using a mempool for parsing incoming data in the goggle.
- Modified features requested by the US Army for **Enhanced Night Vision Goggle–Binocular (ENVG-B)**. **Modified Intra Soldier Wireless (ISW)** Manager to comply with the FCC's requirement of airworthiness. Migrated the current ENVGB-DR HUD Plugin implementation to newer ATAK app versions by updating **the JDK** and **SDK** in **Android Studios** allowing our plugins to communicate with latest devices.
- Identified gaps in workflow and developed an automated test platform in **Python** for **Small Precision Enhanced Aiming Rangefinder (SPEAR**). Programmed an STM32 Nucleo board in **C** to send signals to hardware to mimic user actions. Validated test results using **Tesseract** and **OpenCV** to read text from an LED screen. Reduced manual testing by **60%**.
- Implemented and debugged new features for **Small Precision Enhanced Aiming Rangefinder (SPEAR)** to update ballistic calculations based on data transmitted from a weather meter in **BLE**. This enabled users to calculate using real time data to improve shooting accuracy.

Software Engineer Intern - ENDEAVR Institute (College Station, TX) 09/2021 - 05/2022

- Designed the foundations for ENDEAVR's telemed system. Implemented blood pressure monitoring software onto Arduino as proof of concept.
- Read pressure from blood pressure cuffs to calculate for systolic and diastolic blood pressures for a population of over 6000 people using the telemed system.
- Collaborated to decide major design points for project (e.g. System optimization, Circuit design)

Education

Texas A&M University, College Station, Texas 2018-2023
B.S of Electronic Systems Engineering

Projects

Active Shooter Surveillance Capstone

- Collaborated in a team of 4 to implement real-time surveillance with weapon recognition.
- Capstone project designed to monitor and give alerts for building staff in the event of an active shooting.
- Engineering a camera module using Raspberry Pi 4 as SBC.
- Developing Python code to track weapons and faces on the Raspberry Pi 4 using OpenCV library.

RTOS Project

- Constructed a microcontroller system containing 4 running tasks that manage LEDs and their blink rates based on switch toggles, temperature changes, and console inputs.
- Designed a temperature sensing program in C using major Kernel construct tools.
- Wrote a console using UART that includes 6 commands with one to log 50 temperature readings.

Technical Skills

- Languages: C++, C, Python, C#, Java, Kotlin
- Technologies: Visual Studio Code, Android Studio, HTML/CSS
- Development Practices: Agile Development, Git, Jenkins, Jira, Unit Testing