

Tristan John de Lemos

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Github: <https://github.com/tristandelemos> | Portfolio: <https://tristandelemos.github.io/resume-site/>

About Me

I am a Computer Engineering graduate with hands-on experience in embedded systems, hardware testing, and full-stack development. I have built and deployed capstone and personal engineering projects using STM32, Python, and Flutter. I am seeking an entry-level software or embedded engineering position while actively developing and maintaining technical projects.

EDUCATION

Bachelor of Science in Computer Engineering – June 2023

Relevant Coursework: Operating Systems, Mechatronics, Microcontrollers & Embedded Systems, Computer & Digital Design, Electrical Circuit Analysis

SKILLS

Programming Languages: Python, Javascript, HTML, C, Java, SystemVerilog, Dart

Tools and Framework: Github, VScode, Xilinx, PSpice, Pycharm, Flutter

Hardware Testing Devices: STM32, Oscilloscope, Function Generator, Digital and Analog Multimeters, DC Power Supply, Op Amp Circuits

Other: Microsoft Office Suite and Basic Korean

PROJECTS

Bypassing Voice Assistants: Developed a security testing prototype using an Arduino to output a .wav file via a laser, successfully bypassing voice recognition systems on devices such as Amazon Alexa.

Technologies: Arduino, .wav encoding, laser emitter

Airable Ventilator: Designed and developed a Flutter based app to integrate health data from wearable devices (e.g. Apple Watch) with ventilator hardware. Collaborated with a multidisciplinary team to complete hardware design and web development, enabling dynamic ventilator adjustments based on user health metrics.

Technologies: Flutter, Bluetooth API, Apple Watch, Embedded C

Turret Control System: Developed a Python-based finite state machine on STM32 to detect and aim a NERF turret at heat sources in filtered thermal images. Managed motor control and firing logic.

Technologies: STM32, Python, motor driver circuits

Personal Development Projects: Created 50+ software scripts and mini projects to sharpen coding and problem-solving skills. Constructed and tested multiple electrical circuit systems using various hardware testing devices. Ongoing work includes REST APIs, portfolio site, and diagnostics apps.

Technologies: Flask, HTML/CSS/JS, SQLite, GitHub Pages

Other Experience

English Second Language Teacher, Sogang Language Program - Suwon, South Korea

February 2024 – March 2025

Taught 50+ students weekly in English grammar, conversation, and critical thinking. Delivered 40+ hours of lessons each week and collaborated on curriculum improvements. Collaborated with native Koreans and foreign English speakers to improve the coursework for students

Substitute Teacher, Castaic Union School District – Santa Clarita, California

August 2023 – January 2024, March 2025 - Present

Instructed K–8 classrooms across multiple subjects. Maintained classroom discipline and ensured learning continuity during teacher absences.