

Lyle Denzell C. Trillanes

lyle-trillanes.vercel.app • Angeles City, Pampanga • lyledenzell29@gmail.com • 0939 818 3055

Technical Skills

Languages: Python, C, C++, JavaScript, Java, HTML, CSS, Google Apps Script, Rust
Tools & Frameworks: Git, Github, ReactJS, ExpressJS, NodeJS, PostgreSQL, Zephyr RTOS, MATLAB, KiCad, Onshape, PrusaSlicer, LTSpice
Hardware Platforms: Arduino, STM32, FPGA, nRF
Other: GSuite (Docs, Sheets, Slides), Microsoft Suite (Word, Excel, PowerPoint), Photoshop, Canva

Education

UNIVERSITY OF THE PHILIPPINES, DILIMAN Quezon City, Metro Manila
BS Computer Engineering (Cum Laude) July 2025

Projects and Experience

SPINCREDIBLE LAUNDRY SHOP

Full Stack Developer

- Developed a POS system deployed as a web application using HTML, CSS, and JavaScript, which is used in the family business to help keep track of daily sales and inventory.
- Integrated the application into a Google sheet for better tabulation and visualization of data.
- Maintained and iterated the app based on feedback from actual business operations.

UP CIRCUIT (TEP 12 Logistics Committee)

The E-waste Project Inventory Automation System

- Created a Google Apps Script tool integrated with Forms and Sheets to automate e-waste inventory.
- Improved tracking reliability and streamlined data collection during the environmental initiative.

Auscultawear (Academic Thesis Project)

Thesis: Auscultawear: A Wearable Audio-Based Monitoring Platform for Heart and Respiratory Rates

- System Components** include hardware (wearable device), software frontend (mobile app), and software backend (signal processing algorithms).
- Hardware Lead:** Designed the hardware system, including the enclosure, and developed the embedded system by interfacing the microcontroller with sensors.
- Developed a low-power wearable using the nRF52840 MCU to record and stream raw physiological audio.
- Implemented BLE NUS protocol, optimized data buffering for communication with the Android app counterpart.

Relevant courses: Data Structures and Algorithms, Computer Organization and Embedded Systems, Computing Architectures, Computing Systems, Instrumentation Electronics, Switching Theory and Digital Logic Design

Leadership & Organizational Involvement

IEEE UNIVERSITY OF THE PHILIPPINES STUDENT BRANCH

Quezon City, Metro Manila
September 2023 – August 2024

Director for Finance

- Spearheaded the Finance Committee for the Institute of Electrical and Electronics Engineers University of the Philippines Diliman Student Branch.
- Fulfilled to liquefy frozen assets of 2 years in this term, raising the organization’s operational equity to more than 500%

UP CIRCUIT

Quezon City, Metro Manila
September 2023 – August 2024

Labkeeet-A Project Manager

- Labkeeet-A is a project-selling initiative providing students of EEEl in UP Diliman with electronic components and equipment needed for their lab projects.
- Delivered a record-breaking increase in social media reach and interaction, with an increase of 15.6K in the total reach breakdown.

TEP 12 Logistics Committee

August 2024

- The E-Waste Project (TEP) is an annual event that seeks to address the increasing environmental risks and hazards brought about by the improper disposal of electronic waste.
- Helped in overseeing storage management operations, ensuring proper organization and accessibility.

UP BADMINTON ASSOCIATION IN DILIMAN

Quezon City, Metro Manila
March 2024 – May 2024

External Affairs Committee Head

- Responsible for securing sponsorships from partner companies with the 3rd BadAss League Cup.

Training and Development Officer-in-Charge

January 2023 – July 2023

- Planned and oversaw activities and responsibilities bestowed upon the Training and Development committee.
- Helped with the planning and execution of the 2nd BadAss League Cup

UP SAMAHAN NG MAGAARAL NA NAGKAKAISA

Mabalacat City, Pampanga
October 2021 – December 2021

Lingap External Affairs Committee Co-Head

- LINGAP is a fundraising beneficiary concert, an alternative to the annual Samana Pinoy Festival.
- Secured 60% of the total funds collected during the fundraising event by successfully closing individual donor contributions.