

Computer Science - Software Engineering student with broad freelancing experience across web, mobile, automation, embedded systems, and electronics.

TECHNICAL SKILLS

Programming: C++, C#, Java, PHP, Kotlin, Python, JavaScript, Dart

Web and Backend: Node.js, Laravel, Docker, jQuery, MySQL, Supabase, WordPress, HTML, CSS

Mobile: Flutter, Android SDK, Kotlin

Cloud and Tools: AWS Lightsail, Git, Visual Studio Code

Automation: PowerShell, Bash, Selenium, AutoHotkey

Embedded Systems: ESP32, ESP-IDF, Raspberry Pi, Arduino

Hardware: Electronics prototyping, PCB design and testing, component-level troubleshooting, micro soldering

EXPERIENCE

Freelance Software Developer | Self-Employed | 2019 - Present

- Develop software applications and utilities using C++, C#, Java, PHP, Kotlin, Python, JavaScript, and Dart.
- Build and troubleshoot web and mobile applications using Laravel, Node.js, MySQL, Supabase, Flutter, Android SDK, and Git.
- Develop automation and scripting solutions using Python, Selenium, and AutoHotkey.

Hardware Developer / Electronics Technician and Generalist | Self-Employed | 2016 - Present

- Create embedded systems and hardware prototypes using ESP32/ESP-IDF, Raspberry Pi, and Arduino.
- Diagnose and repair electronics at component level using micro soldering up to 0201 metric components (THT, SMT, BGA).
- Perform live PCB probing and testing with various equipment such as multimeter, oscilloscope, & LCR meter.

3D Modeling Work Immersion | Technokids Philippines | 2019 | 80 Hours

- Created and modified 3D assets using Blender during an 80-hour work immersion program.

PROJECTS

ESP32-C3 HDMI Display Control and EDID Emulator (2026) | C++, ESP-IDF, I2C, PWM

- Developed embedded firmware for laptop backlight control and HDMI EDID emulation, including low-level I2C/DDC communication, persistent brightness settings, keyboard matrix interception, and software brightness control.
- Built and installed the device onto a customer device via micro soldering jumper wires, with considerations to battery life by determining the most appropriate power rail to tap in to.

Android Loud Noise Monitoring Application (2026) | Kotlin, Android SDK, JNI

- Background audio monitoring, exposure tracking, notifications, and C++ native audio-processing using Oboe framework.

STAR - Thesis Archive and Review Platform (2025) | Laravel, PHP, SQLite, Google OAuth, Google Cloud

- Built a full-stack thesis repository with PDF submissions, approval workflows, search, saved documents, and Google sign-in (SSO), deployed to a Linux Google cloud server with HTTPS.

deVOID – Thesis Website (2024) | PHP, HTML, CSS, JavaScript, AWS Lightsail

- Developed and deployed a custom PHP website on AWS Lightsail based on client-provided design requirements.
- Delivered the application within a one-week development schedule.

Harvest Monitoring and Spoilage Prediction Prototype (2021) | ESP32, Raspberry Pi, TCP/IP

- Developed a wireless environmental sensor hub measuring CO₂, oxygen, temperature, and humidity. Transmitting measurements to a Raspberry Pi server for spoilage-prediction experimentation.

WalkWatch - Pedestrian Hazard Reporting System (2026 - Ongoing thesis) | Flutter, Machine Learning, Geolocation

- Designed a crowdsourced hazard-reporting workflow with image-based classification, map-based reports, verification, and agency delegation.

EDUCATION

Bachelor of Science in Computer Science - Software Engineering | iAcademy, Makati | 2019 – Present

PROFESSIONAL DEVELOPMENT

Build with AI: The Future of AI and Research | GDG Cloud Manila | June 2026

Certificate of Attendance | iAcademy Nexus, Makati City