

CHRISTIAN JAKE MANGABAY





Embedded Software Engineer

+63-956-284-8077

mangabaychristianjake@gmail.com

2748 National Road, Anos, Los Baños, Laguna, Phil.

LinkedIn: Christian Jake Mangabay | GitHub: mangabaycjake



REGISTERED ELECTRICAL ENGINEER. Specializing in the development of automated systems through the integration of programming, instrumentation, and engineering. Passionate, willing to learn, and always seeking improvements.

EDUCATION

University of the Philippines - Los Baños

Bachelor of Science in Electrical Engineering
Major in Computer Engineering
August 2019 – August 2024
DOST - SEI Scholar

LEADERSHIP

Chairperson for Skills & Training Committee

UPLB Data Science Guild | 2023 - 2024

- Led the planning and execution of technical training events, covering data science tools and programming
- Coordinated event logistics, including scheduling, speaker invitations, resource allocation
- Managed committee's documentations

TRAININGS AND SEMINARS

Data Analytics for the Future - X

UPLB Graduate School & DOST PCCAARRD
Nov 2 - Dec 2023

- Completed a 5-day hands-on training on data analytics and practical tool application
- Gained practical experience in data preparation, dashboarding, machine learning, and statistics using software

Senior High School Work Immersion

Ogura Clutch Philippines Inc. Calamba City, Laguna
Oct - Nov 2018

- Completed 40 hours of hands-on experience at a micro clutch manufacturing company, including Quality Assurance Department, Warehouse Operations, Administrative Office: and Production Line:

LANGUAGES

Fluent in English and Filipino, oral and written

PROJECTS

Development of PID Control for Autonomous Horizontal Navigation of Non-GPS Drone with Onboard Microcomputer

Undergraduate Thesis | 2023 - 2024

- Developed computer vision-based autonomous navigation system of a non-GPS drone using Raspberry Pi Zero 2W
- Integrated communications and control between drone, microcomputer, and smartphone

Bluetooth Buzzers with Arduino and Python

Personal Project | 2025

- Programmed a Windows app with UI for advanced control such as notifier, timers and score management
- Integrated with OBS Studio to enhance real-time hosting display
- Built buzzers that can be connected to computers and phones

Mung Seed Counting System with Arduino

Project - Course | 2022

- Constructed a device to count mung seeds in real-time
- Built a robotic arm-like mechanical seed-drop mechanism with actuator support and blockage-detection sensors to ensure smooth and continuous seed flow.

Others include: drone simulation app, TV channel scanning device, and 50-digit Arduino calculator

SKILLS AND INTERESTS

- Programming** - Skilled in Python, C++, C, C#, and VB; some experiences with JavaScript, AWS, SQL, R, and VHDL
- Hardware** - Proficient in microcontrollers, microcomputers, and circuit designs
- Software** - Proficient in AutoCAD, MATLAB, MS Excel Macros; some experiences with PLC and SIMetrix
- Soft skills** - Highlights logical thinking, creativity, problem solving, and attention to details; trained in research, communication, adaptability, and time management
- Interests** - Enthusiastic in automation, programming, engineering craftsmanship, and data analytics
- Attributes** - Exhibits deep understanding and perfectionism