

RODRIGO G. BARIEN III

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Education

BACHELOR OF SCIENCE IN ELECTRONICS ENGINEERING (2024 | University of Saint Louis Tuguegarao)

- Major: Microcontrollers and Embedded Systems
- Minor: Digital Communications & Telecommunications
- Related coursework: Electronics, Computer Programming, Digital Signal Processing, Networking

Experience

FREELANCE DEVELOPER (Upwork/Online | June 2023 – Present)

- I develop customized solutions using diverse programming languages, tech stacks, and frameworks for various projects for clients, dealing with hardware, software, and web related projects.
- I successfully completed total of 14 small to mid-sized projects while working for 5 clients in Upwork and other platform.

IECEP ESC, Organizational President (Cagayan Valley, PH | August 2023 – June 2024)

- I led and coordinated numerous events and initiatives aimed at enhancing the academic and professional development of our members.
- I managed teams, organized workshops, seminars, and networking events, and fostered collaboration between students and industry professionals.

GLOBE TELECOM, Emerging Technologies Intern (Taguig City, PH | June 2023 – August 2023)

- I worked on innovative projects such as 5G, IoT, AR/VR, ML and AI, and App Development within the Technology Strategy and Innovation (TSI) division.
- I assisted in researching emerging technologies, attended relevant conferences, met with vendor companies, contributed to the implementation of new systems, and collaborated with cross-functional teams to support the company's technological advancements and strategic initiatives.

Skills & Abilities

LANGUAGES / TECHNOLOGIES

- C#, C++, .NET, Python, ReactJS, NodeJS, MongoDB, Tensorflow, Keras, TinyML, LangChain, AWS, GCP

ENGINEERING SKILLSET

- Matlab, Multisim, Diptrace, AutoCAD, CISCO Packet Tracer, Arduino, ESP, STM, Raspberry Pi, Teensy

Featured Projects

AI-POWERED VISUAL STUDIO CODE EXTENSION FOR CODE ASSISTANCE | Hackathon, Startup, Thesis Project | August-December 2023

- Built an extension utilizing VS Code Extension API, LangChain, RAG Technology, and NodeJS to provide code explanations, generate documentation, and offer coding exercises, enhancing the developer experience.
- This was successfully presented on International Conferences and CHAMPION on a national level Startup competition besting 629 entries from 158 schools and universities.

ACOUSTICE SURVEILLANCE AND TINYML-BASED SYSTEM FOR DETECTING ILLEGAL LOGGING | Thesis Project | December 2023 – June 2024

- Developed a novel system using the RP2040 microcontroller, utilizing DSP, TinyML, and LORA to detect and alert illegal logging activities. This was successfully presented on school and national conferences, and hackathons.

SMART VENDING FRIDGE | Upwork Project | January – March 2024

- Developed a proof-of-concept (POC) project for a Singapore-based client building vending fridges. I built the entire system including a PWA android app using Ionic, an admin dashboard using NextJS, a middleware using C#, and Arduino for controlling the fridge.

For more projects and detailed descriptions, please visit my [portfolio website](#).