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, Networking

Experience

FREELANCE DEVELOPER (Upwork/Online | June 2023 – Present)
- Delivered high quality customized IoT, software, and web solutions by leveraging diverse programming languages, tech stacks, and frameworks.
- Utilized Agile methodologies to manage project timelines, deliverables, and stakeholder communications, resulting in consistent on-time project completion.
- Provided ongoing technical support and maintenance post-deployment, addressing client concerns and ensuring continued satisfaction.
- Successfully completing 16 small to mid-sized contractual projects for 5 clients across multiple platforms, enhancing their operational capabilities and achieving high client satisfaction.

GLOBE TELECOM INC, Emerging Technologies Intern (BGC, Taguig City, PH | June 2023 – August 2023)
- Worked on innovative projects such as 5G, IoT, Cloud and Networking, AR/VR, ML and AI, and App Development within the Technology Strategy and Innovation (TSI) division.
- Designed and developed web applications primarily using MERN stack to demonstrate the potential of new technologies, providing interactive prototypes for internal stakeholders and partners.
- Created detailed reports and presentations on emerging technology trends and their potential impact on the tech industry, aiding in strategic planning and decision-making.
- Attended relevant conferences, staying updated on the latest trends and developments in tech industry.
- Met with vendor companies, exploring new solutions and fostering partnerships to enhance technological capabilities.

IECEP ESC, Organizational President (Cagayan Valley, PH | August 2023 – June 2024)
- Led and coordinated numerous events and initiatives aimed at enhancing the academic and professional development of our members.
- Managed teams, organized workshops, seminars, and networking events, and fostered collaboration between students and industry professionals.

Skills & Abilities

LANGUAGES: C++,C#, Python, Javascript, Typescript, HTML/CSS
FRAMEWORKS: .NET, React, NextJS, Ionic, FastAPI, Flask, Express, NodeJS, Tensorflow, Keras, TinyML, Langchain
CLOUD AND DATABASE: AWS, Google Cloud, MongoDB, MySQL, Supabase
OTHER ENGINEERING TOOLS: MATLAB, Multisim, AutoCAD, Cisco Packet Tracer, Arduino, ESP, STM, Raspberry Pi

Featured Projects

AI-POWERED VISUAL STUDIO CODE EXTENSION FOR CODE ASSISTANCE
- 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
- 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
- Developed a proof-of-concept (POC) project for a Singapore-based client building vending fridges. 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.