

GIANNE P. BACAY

Full-Stack Developer & AI Engineer

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Full-Stack Developer and AI Engineer experienced in building scalable web applications, AI-powered systems, and business solutions using modern tech stacks. Proficient in Python, React.js, Next.js, Node.js, NestJS, PostgreSQL, and Tailwind CSS, with expertise in full-stack development, AI integration, and software engineering.

WORK EXPERIENCE

Full-Stack Developer Intern | Department of Trade and Industry – Region XI | July 2025 - December 2025

- Designed and developed an internal Property Management System using Next.js, React, TypeScript, PostgreSQL, and Supabase to automate government asset tracking and administrative workflows.
- Deployed the application on a secure NAS server, implementing role-based access control (RBAC), authentication, and database management.
- Applied Agile development practices, iterative testing, debugging, and AI-assisted workflows to improve application performance, reliability, and maintainability.

Freelance Full-stack Developer / AI Engineer / Independent Contractor | August 2025 - Present

- Developed and deployed scalable full-stack applications and AI-powered solutions, translating client requirements into production-ready software.
- Integrated LLMs, Retrieval-Augmented Generation (RAG), workflow automation, and RESTful APIs using Python, Node.js, and modern web frameworks.
- Managed end-to-end software development using Agile methodology and specification-driven workflows, including requirements analysis, system design, testing, deployment, and maintenance.

TECHNICAL SKILLS

Programming: Python, JavaScript, TypeScript, PHP, Java, C++, R, HTML, CSS

Frameworks: React.js, Next.js, Node.js, NestJS, Django, Flask, Tailwind CSS, Shadcn UI

Databases: PostgreSQL, MySQL, Supabase, Neon, LanceDB, NoSQL

AI/ML: TensorFlow, Keras, OpenCV, NumPy, Pandas, Hugging Face, LLMs, RAG, Ollama

Methodologies: Agile, SDLC, TDD, SDD, REST APIs, RBAC

Developer Tools: Git, GitHub, Cursor, Codex, Claude Code

FEATURED PROJECTS

DTI Property Management System (Department of Trade and Industry Philippines Region XI – Finance Administrative Division) | DTI NAS Server

IT Practicum (OJT) | July 2025 – December 2025

- Developed a web-based Property Management System automating PPE and SEP lifecycle tracking, classification, tagging, and report generation in compliance with COA standards. Built with Next.js, React, Node.js, PostgreSQL, Supabase, Tailwind CSS, and Shadcn UI, and deployed on a secure DTI NAS intranet environment.

A.R.C.A.N.E. - Neuromimetic system 1 AI model python library | <https://pypi.org/project/gpbacay-arcane/>

Personal Project | December 2024 - Present

- Developed ARCANE, an open-source Python library for adaptive System 1 AI and biologically inspired neural networks, integrating neural resonance, inference-time adaptation, spiking neurons, Hebbian learning, and memory-based reasoning using Python, NumPy, TensorFlow, and Keras.

GPBacay's Portfolio (Personal Portfolio Website with AI Agent) | <https://personal-portfolio-2025-delta.vercel.app/>

Application Systems Development Project | May 2024 - Present

- Built a mobile responsive portfolio website with a local AI agent using Next.js, React, Node.js, Tailwind CSS, Shadcn UI, JavaScript / TypeScript, and deployed via Vercel.

CERTIFICATIONS

Civil Service Exam - Pen & Paper Test Professional Level (CSE-PPT-Prof) | 2023

- Passed the Philippines's Civil Service Exam - Pen & Paper Test Professional Level (CSE-PPT-Prof) on first attempt, August 20, 2023

1st Place - AI Hackathon CHAMPION (Pearson Enterprise Learning & Skills - Asia Pacific) | 2025

- Gained from winning AI Frontiers and ICT Davao's AI Hackathon 2025 MSME Edition, recognized for the highest overall evaluation in industry, business, and technology.

EDUCATION

University of Southeastern Philippines | 2022 - 2026

Bachelor of Science in Information Technology - Major in Business Technology Management

Magna Cum Laude

EXTRACURRICULARS

Executive Secretary (Operations Committee) - University of Southeastern Philippines Developer Student Community

(USEP - DSC) | 2024 - 2025