Alexander Calaunan Jr

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EDUCATION

University Of Wollongong, SIM GE

Jan 2022 - June 2024

Bachelor of Computer Science, Big Data

Singapore

Grade: Distinction **EXPERIENCE**

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Dec. 2024 - Present

Freelance Software Developer

Megoria Laundry and Dry Cleaning Operation Management System

- Designed and developed a scalable application for a laundry and dry cleaning business to streamline staff operations, and replaced the legacy device-based storage system with a centralised database to prevent performance bottlenecks and ensure data consistency across multiple store locations.
- Built performance-enhanced user-friendly interface to facilitate quick data entry and retrieval.
- Collaborated with stakeholders to identify inefficiencies in the existing system and ensure the new solution aligned with business needs.
- Tech: React, Vite, Typescript, Node.js, Express.js, Supabase, Tauri, Render

PROJECTS, ACHIEVEMENTS & HACKATHONS

SuperAI Next AI Hackathon 2025 Winner

June 2025

- Selected as one of 4 winning teams out of 60 teams at AI Hackathon hosted by SuperAI, developing an AI healthcare voice-first companion that supports patients during ER waits and helps nurses with triage and decision-making, enhancing care, streamlines workflows, and improves communication.
- **Built and optimised** the frontend, ensuring seamless data flow for calls to LLM models via Model Context Protocol (MCP) and WebRTC and integrating effectively with AWS Lambda functions and S3 bucket operations.
- **Validated** by significant industry interest and traction from leading companies, leading to ongoing efforts to evolve the project into a viable startup, demonstrating real-world applicability.
- Tech: NextJs, AWS Bedrock, AWS Lambda, AWS S3, SambaNova, OpenAI, Vercel

Top Care Fashion Web App

Jan. 2024 - May 2024

- **Spearheaded** project completion by taking on lead roles in frontend and backend development for a C2C fashion e-commerce platform, managing over 70% of the codebase.
- Implemented AI models (YOLOv8, Gemini Pro Vision) for object detection and visual search, overcoming technical challenges and achieving an accuracy rate of 90% in visual searches.
- Tech: React, Material UI, Django REST Framework, SQLite, Node.js, GitHub, Heroku

MICASA Real Estate Properties Web App

Apr. 2024 - May 2024

- Led a cross-functional team of 6 members in developing a real estate web application, utilising Agile Scrum methodology to deliver key features on time.
- Architected and implemented the software solution using the BCE framework, overseeing the project from initial design through final testing.
- **Spearheaded** the adoption of test-driven development (TDD), ensuring robust code quality and resulting in a significant reduction in bugs and time saved on testing phases, and enhanced code reliability for the application.
- Tech: React.js, Node.js, Tailwind CSS, Flask, SQLAlchemy, PyTest, Figma, Taiga, Github

SIM IT Club x Omnitool Applied AI Hackathon (1st Runner Up)

Feb. 2024

- **Coordinated** with a team of 4 to develop a web application that incorporates Omnitool's API that generates several pictures with text to be used as social media slides/cards/stories based on a user's prompt in 48 hours.
- Technologies used: Python, JavaScript, Llama 2-7b Chat, Streamlit, PILLOW, DotEnv, ZipFile.

SKILLS

Programming Languages: JavaScript, TypeScript, Java, Python, C++, SQL, HTML, CSS

Frontend: React, NextJS, Vite, Tailwind CSS, shaden, Material UI, Flowbite, React Native, Zustand, Tauri

Backend: Express.js, Node.js, Flask, Django REST API, Firebase

Database: PostgreSQL, MySQL, MongoDB, PL/SQL, Supabase

Other Tools & Technologies: Jira, Taiga, Git, GitHub, Selenium, Linux, Figma, Docker

LEADERSHIP EXPERIENCES & INTERESTS

President of Singapore Polytechnic Jazz Band (2017): Oversaw the club's welfare, operations and musical direction. Music: Guitarist for local math rock band Woes since 2018, writing, producing, releasing music and performing.