Emmanuel Delacruz Malagamba

Full-Stack Software Developer

Summary

Full-stack developer specializing in the MERN stack with hands-on experience in Python and machine learning. Built scalable POS, e-commerce, and Al-powered agricultural apps from concept to deployment. Strong collaborator in Agile teams, focused on delivering secure, high-performing applications with intuitive user experiences.

Experience

Kave Guild

Freelance Full-Stack Developer

- Maintained and enhanced a production-ready POS system, adding new features and resolving bugs to ensure system stability.
- Collaborate with lead developer on code reviews and system improvements.
- Support ongoing development using *MERN* stack technologies.

Kave Guild January 2025 - May 2025

Full-Stack Developer Intern

- Delivered a functional POS system by contributing to the full-stack development using the *MERN* stack with integrated inventory tracking.
- Ensured seamless user experience across devices by implementing responsive designs.
- Contributed to a 4-member Agile Scrum team, participating in sprint planning, code reviews, and daily stand-ups to deliver features on schedule.

STI-College General Santos

January 2024 - November 2024

June 2025 - July 2025

Researcher & Full-Stack Developer

Empowered farmers through a cross-platform app for pest identification and yield forecasting using *CNN* TensorFlow/Keras and OpenCV.

Achieved 96.5% accuracy in pest classification using custom-trained machine learning model.

- Ensured iterative progress and risk mitigation by applying the *Agile Spiral model*.

STI-College General Santos: Code Fest (1st Runner-Up) Front-End Developer

March 2024

Led front-end development in 6-hour coding challenge with 3-person team

- Developed Java-based hotel reservation mobile application
- Demonstrated rapid prototyping and teamwork skills under pressure

Projects & Contributions Harvest Assistant: A Smart Pest Management and Enhanced Grain Production

An integrated solution featuring a web admin platform, mobile application, and CNN model aimed at addressing challenges in local grain agriculture.

https://github.com/Amenyuwel/Harvest-Frontend Built mobile platform for farmers with pest image classification using TensorFlow/Keras, trained and deployed custom

- ML model achieving *96.5%* classification accuracy.
- Designed features for income estimation, seasonal pest activity, and yield forecasting.
- Conducted alpha and beta tests with farmers; achieved strong adoption for pest classification and harvest planning. React, Nextjs, React Native Expo, Express, MongoDB, Mongoose, Python, Flask

Al-Refine Web-based image augmentation tool for dataset refinement for CNN Models.

https://github.com/Amenyuwel/Ai-Refine

- Built responsive web application using Next.js and PocketBase for CNN model training enhancement
- Implemented drag-and-drop functionality with real-time image processing (flip, grayscale, blur, brightness)
- Enhanced CNN model training by developing a dataset refinement tool with image augmentation features (flip, blur,
- grayscale, brightness). React, Nextjs, PocketBase

Appliance Shop E-Commerce

A comprehensive back-office system for inventory, analytics, forecasting, and Point of Sale (POS).

https://github.com/VKx64/DK-Admin

Integrated sales forecasting using Facebook Prophet and displayed results through interactive front-end visualizations.

- Built interactive analytics dashboard displaying sales trends and customer insights Built RESTful API with complete CRUD operations and secure authentication, enabling seamless and reliable data flow
- between front-end and back-end.
- Python, Forecasting, Flask, RESTful API

Thesis Library Portal

STI-College General Santos' web-based portal for managing and accessing digital thesis collections.

https://github.com/Kristoferseyan/thesis_lib

Enhanced UI performance and responsiveness across multiple device formats Refactored architecture, reducing file complexity and improving maintainability

React, Nextjs, Responsiveness, TailwindCSS

Skills Programming Languages

JavaScript, Python

Frontend

. . . . Next.js, TailwindCSS, HTML, CSS, React

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Database

Backend

MongoDB, PocketBase, MySQL, Supabase

Node.js, Express, Flask, REST APIs, JWT, Mongoose, Postman

Mobile

React Native, Expo Go

AI/ML

TensorFlow, Keras, OpenCV, Prophet, Kaggle

Tools and Workflow

Git, Github, Agile/Scrum **Education**

STI-College General Santos

Bachelor of Science in Computer Science

Tertiary

Sept 2021 – June 2025

1.75 GWA (3.5 / 4.0 GPA)

June 2019 - April 2021 Senior High School

Notre-Dame Siena College of General Santos Science, Technology, Engineering, and Mathematics