Ashley Denise Goce

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SUMMARY

Computer Engineering graduate with hands-on experience in embedded systems, IoT, and web development. Completed a technical internship in Taiwan focusing on real-time monitoring systems using Raspberry Pi, Python, and Linux. Led and managed the software development side for my undergraduate thesis; built and deployed a web app using Vercel, React.js and Firebase.

EDUCATION & INTERNSHIP

Adamson University - *Bachelor of Science, Computer Engineering*

- Relevant Coursework: Computer Networks, Algorithms, Database Management Systems, Software Engineering

Chung Yuan Christian University - Taiwan (*Student Researcher)*

- Relevant Coursework: Raspberry Pi, Linux, Python, Embedded Systems

  Worked on a research project titled *"Advanced Remote Temperature Monitoring"*, which involved designing a real-time monitoring system using Raspberry Pi and DS18B20 sensors. Developed scripts in Python within a Linux environment, enabling data collection, logging, and web-based remote access for temperature-critical applications.

EXTRACURRICULAR INVOLVEMENT

Adamson University Computer Engineering Society (*ACOES*)
Institute of Computer Engineers of the Philippines - student edition (*ICpEP.se*)
Adamson University Mathematics Society

- Outreach Directress *(2022 - 2023)* || Vice President - External *(2023 - 2024)*

PROJECTS

Enhanced Road Safety – Machine Learning Project (*Academic Project, 2024 | Group Project)*
Developed a real-time object detection system using ***YOLOv5*** to recognize traffic signs and lane markings to help prevent road accidents in the Philippines. Trained and tested ML models using Google Colab and NVIDIA-powered local GPU; contributed to dataset preparation and model evaluation.
Tools used: Python, YOLOv5, Google Colab, NVIDIA CUDA, OpenCV

Product Inventory System – Responsive Web Application (*Academic Project, 2024 | Group Project)*
Developed a responsive inventory management system for tracking product stock and transactions, accessible on both mobile and desktop browsers. Ensured a mobile-friendly, responsive layout for seamless user experience across devices. Collaborated with backend teammates for database and data flow integration.
Role: Handled the entire frontend, from UI/UX design to implementation of all interface functionalities including navigation, form validation, and dynamic updates.
Tools used: HTML, CSS, JavaScript

Capstone Thesis - RideSafe (*Adamson University, 2025)*
Developed a smart embedded system that locks the motorcycle engine when alcohol is detected, enhancing road safety through sensor-based ignition control. The system includes a web application built with React.js and deployed on Vercel, with user data managed through Firebase Firestore and Firebase Authentication. The embedded hardware integrates a fingerprint sensor for biometric access, all programmed via Arduino IDE.
Role: Handled web app backend integration and deployment; designed and implemented the entire frontend interface; assisted in programming hardware components.
Tools used: React.js, Firebase Firestore, Firebase Authentication, Vercel, Arduino IDE

TECHNICAL SKILLS

- ***Languages & Scripting*:** Python, C++, JavaScript, PHP, SQL
- ***Web Development:*** HTML, CSS, React.js, Firebase, Vercel, Responsive Design
- ***Cloud & Databases:*** Firebase Realtime Database, Cloud Firestore, Firebase Authentication
- ***Software Tools:*** AutoCAD, SolidWorks, MS Office (Excel, Word, PowerPoint), Git/GitHub
- ***UI/UX & Design:*** UI/UX Design Principles, Wireframing, Graphic Design (Canva, Photoshop)
- ***Machine Learning:*** YOLOv5, Google Colab, NVIDIA CUDA, OpenCV