

Johnfil Initan

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🔗 Personal Website in LinkedIn 🐙 GitHub

I am a computer engineering student dedicated to making impactful hardware and software solutions. I enjoy making all sorts of computer applications, and I aspire to become a software development engineer.

EDUCATION

Bachelor of Science, Major in Computer Engineering,
University of San Carlos

Expected June 2024
Cebu, Philippines

SKILLS

Programming Languages

C, Java, Python, Swift, PHP, HTML, CSS, JavaScript, TypeScript, x86

Web Development

React, Next.js, Tailwind CSS, PostgreSQL, Node.js, Django, Postman

Data Science

TensorFlow, Keras, pandas, NumPy, scikit-learn, MATLAB, OpenCV, Matplotlib

Hardware & Electronics

Arduino, Intel 8086, PIC16, Verilog, Proteus, MPLAB

Design

Figma, SketchUp, EAGLE, AutoCAD

Other

Git, Bash, Firebase, MS Office Suite, LaTeX

PROJECTS

Virgorus Travel Services, web application [🔗](#)

- used Axios library for API fetches that retrieves data and dynamically displays information based on the required data field.
- route protection and admin authentication is implemented via NextAuth.

EZ-Forms, web application [🔗](#)

- used Next.js and the ShadCN UI library for rapid development of a dynamic user interface.
- employed the OpenAI API to create a GPT3.5-powered tool which auto-generates suggestions for fields such as descriptions, objectives, agenda, and program flows

DProSA, machine learning [🔗](#)

- built desktop application for experimentation using Python and the Tkinter GUI library.
- leveraged the NumPy, Pandas, and SciKit-Learn libraries to formulate a dynamic sorting algorithm.
- visualized algorithmic performance data with Matplotlib to the Python-based desktop application.

E-Plote, software development

- developed a Django-based API responsible for managing RESTful operations on a PostgreSQL database which is hosted on a server configured to serve specific IPs within the local network.
- built a Python application that locally stores transaction data from an externally interfaced RFID-scanning device and syncs the local data to the database once it receives network connection.

Soil Moisture Detector, hardware development

- designed and virtually-simulated the electronic circuit via Proteus.
- programmed the main program logic of the PIC16F877A microcontroller in MPLAB X IDE.
- interfaced a soil moisture sensor to read data via an interrupt service routine and displays it to a 4x20 LCD.