Jonathan M. Apostol

jonathan.apostol877@gmail.com | +639089807225 | jonathanapostol.site

Education

Mariano Marcos State University (MMSU) 2021 – July 2025
BS in Computer Science

- Thesis: Spectral Discrimination of Emotion Signatures in Continuous Homophonic Audio Signals
  - Presented at 2025 IEEE IAICT and published in IEEE Xplore.
- Honor: Cum Laude

Experiences

Backend Developer Intern, MMSU – Batac City, Ilocos Norte July 2024 – Aug 2024

- Created REST API endpoints and integrated MongoDB for scalable storage and retrieval.
- Implemented JWT-based authentication to secure sensitive data.
- Provided daily progress updates to mentors and co-interns to maintain alignment with project goals.
- Tools used: Node.js, Express, MongoDB, Mongoose, JWT

Student Assistant, MMSU – Batac City, Ilocos Norte June 2024 – Aug 2024

- Refactored Laravel-based application of MMSU to improve maintainability.
- Built Docker images in Linux.
- Collaborated with a team of developers and participated in presentations to gather constructive feedback on code.
- Tools used: Linux, Docker, Laravel, Vue, Nginx, MySQL, Pinia JS

Skills

Languages: Python, JavaScript, Java, TypeScript, SQL

Frameworks: React, Express.

DevOps: Linux, Docker.

Databases: MySQL, MongoDB.

Projects

Sliding Puzzle github.com/jonathannnpstl/slidingpuzzle

- Built an interactive sliding puzzle game with intuitive gameplay.
- Integrated an AI solver using A* search algorithm, improving solving speed in 2x2 and 3x3 sized puzzles.
- Tools Used: HTML, JavaScript, CSS

Oras-Muna github.com/jonathannnpstl/oras-muna

- Developed an e-commerce website with an intuitive user interface, including search, carts, and filtering options.
- Deployed using Vercel and integrated MongoDB Atlas database to fetch product details from cloud.
- Tools Used: TypeScript, Next JS, React-Redux, MongoDB

Timeloss Tracker github.com/jonathannnpstl/timeloss-tracker

- Built a Chrome extension that tracks idle browser sessions in real time and visualizes user activity through interactive charts, helping users monitor and understand their productivity patterns.
- Tools Used: HTML/CSS, JavaScript, Chrome Extension APIs, Chart.js