

JEZREIL V. LUMBERA

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EDUCATION

Bachelor of Science in Computer Science

Aug 2021 – Nov 2025

Mapúa Malayan Colleges Laguna

Honors & Awards: Magna Cum Laude, President's Lister, Dean's Lister

Relevant Coursework: Software Engineering, Web Systems & Technologies, Data Analytics, Machine Learning

EXPERIENCE

PetroEnergy Resources Corporation

Apr 2025 – Jul 2025

Full-Stack Web Developer Intern (Backend & Data Engineering)

- Developed **scalable RESTful APIs** using **FastAPI** and **PostgreSQL**, enabling secure backend–frontend communication and reliable data handling across services.
- Designed **PostgreSQL schemas** following **Medallion architecture principles**, improving data organization, query performance, and long-term maintainability.
- Tested and validated API endpoints with **Postman**, ensuring reliability and accuracy.
- Contributed to **frontend modals and UI components**, enhancing user interaction and overall system usability.
- Conducted **UAT** to verify that system features met business requirements and delivered expected results.

PROJECTS

Biomarker Prediction System

Dec 2024 – Jul 2025

- Developed a **web-based tool** to predict CA 19-9 levels using urinary biomarker inputs.
- Tested and compared different **ensemble learning techniques** to improve predictive accuracy of CA 19-9 levels.
- Used **Django** for backend development and **SQLite3** for database management.
- Designed a **responsive and user-friendly interface** using **Bootstrap**.
- Collaborated on project via **GitHub** to have an organized repository for smoother team workflow.

Bookstore Reservation System

Jan 2024 – Jun 2024

- Developed a **web-based reservation system** to manage inventory and reservations.
- Built backend using **ASP.Net MVC** and **MSSQL** for database management.
- Managed **version control and team collaboration** via GitHub.

Other Notable Projects

- Parking Lot Detection (2023)** – Developed a computer vision system in **Python** and **OpenCV** that analyzes top-view images of parking lots to detect, and count occupied and vacant spaces.
- Batuhan (2023)** – Developed a locally hosted 2-player game in **Unity** and **C#**, where players compete to eliminate each other by hitting opponents with throwable items, including the implementation of physics for projectiles.

TECHNICAL SKILLS

Languages: Python, JavaScript, SQL, HTML, CSS, C#

Frameworks / Libraries: Django, FastAPI, Bootstrap, ASP.Net MVC, Node.js

Databases: PostgreSQL, MSSQL, SQLite3, MongoDB

Developer Tools & Platforms: GitHub, Postman, Visual Studio Code, Unity, Firebase, Render

CERTIFICATION

CompTIA IT Fundamentals+

Acquired July 2024