Alejandro Gibrán Zavala González

+52 452-164-7475 | alegizago@gmail.com | LinkedIn | GitHub | Portfolio Web

Profile

Junior backend and machine learning developer focused on building and deploying **production-ready ML systems** using **Python and Java**, currently pursuing a **B.Eng. in Computer Systems Engineering**. Hands-on experience designing **REST APIs**, integrating trained machine learning models into backend services, and working with **SQL databases** using Django, FastAPI, and Spring Boot. Skilled in **data preprocessing, model training, serialization, and real-time inference** using NumPy, pandas, and scikit-learn, with strong interest in **ML deployment, scalability, and backend architecture** within **Linux-based environments**.

Education

Instituto Tecnológico de Morelia	Morelia, Mexico
B.Eng. in Computer Systems Engineering	*Jan. 2024 – Expected Jan 2029*

Experience

Software Development Intern	Aug. 2023 – Dec. 2023
Citelis	*Morelia, Mexico*

- Maintained and updated existing systems using Java and Python to fix bugs and add new features.
- Collaborated with the development team to improve usability and performance of internal tools.

Data Analyst Intern	Dec. 2025 – Present
Citelis	*Morelia, Mexico*

- Analyzed operational and business data using Microsoft Dynamics to support data-driven decision making.
- Performed data cleaning, validation, and organization to improve data consistency and reporting accuracy.

Projects

Heart Failure Predictor	GitHub	Live Demo

- Designed and trained a machine learning classification model to predict heart failure risk from clinical data using **scikit-learn**, **NumPy**, and **pandas**.
- Implemented data preprocessing, feature engineering, and model optimization to improve prediction performance.
- Serialized the trained model with **joblib** and deployed it via a **FastAPI** REST API to serve real-time predictions to a web application.

House Price Predictor	GitHub	Live Demo

- Built a regression-based machine learning system to estimate house prices using structured property data with **scikit-learn**, **NumPy**, and **pandas**.
- Performed data cleaning, exploratory data analysis, feature engineering, and model evaluation to ensure reliable predictions.
- Deployed the trained model using **joblib** and exposed predictions through a **FastAPI** backend, enabling real-time inference from a web interface.

Activities & Achievements

Python Instructor: Taught a 2-week online Python course through the IEEE SIGHT student chapter at Instituto Tecnológico de Morelia.
Competitive Programming: Regular participant in TecNM national competitive programming contests, practicing algorithms and problem-solving in Python and Java.
Student Chapters: Active member of AI, Algorithms/Competitive Programming, and Innovation chapters; attend workshops on data science, computer vision, NLP, and collaborate on multidisciplinary software projects.

Technical Skills

Languages: Python, Java, SQL, JavaScript, HTML, CSS
Frameworks: FastAPI, Django, Django Rest Framework
Databases: MySQL, PostgreSQL, MariaDB, SQLite
Libraries: NumPy, Pandas, Scikit-Learn, Matplotlib, PyTest
Developer Tools: Git, Docker, Linux,, Jupyter Notebook, Conda, pip