

Oscar Antonio Juárez Jiménez

Artificial Intelligence Engineer

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Professional Profile

I am a final-year Artificial Intelligence Engineering student with strong knowledge in programming logic, problem analysis, and problem-solving. I have an intermediate command of English (B2), allowing me to understand and read the language clearly, as well as hold basic conversations.

Education

National Polytechnic Institute - Escuela Superior de Computo	México, CMDX
Bachelor's Degree in Artificial Intelligence Engineering – GPA: 9.5/10	2025

National Polytechnic Institute - Centro de Estudios Científicos y Tecnológicos no. 9	
Juan de Dios Batiz	México, CMDX
Technician in Machines with Automated Systems – GPA: 9/10	2021

Courses & Certifications

- Legacy Responsive Web Design Challenges – FreeCodeCamp
- Legacy Python for Everybody – FreeCodeCamp
- Learn AI Skills Challenge – Microsoft
- JavaScript Algorithms and Data Structures – FreeCodeCamp
- Oracle Next Education – Alura LATAM

Professional Experience

Banco de México | Full-Stack Intern

Jun 2024 – Dec 2024

- Developed and maintained web applications using SQL, HTML, CSS, JSP, and JavaScript.
- Optimized application performance and user experience.
- Managed SQL databases to ensure data integrity and efficiency.
- Collaborated with cross-functional teams to improve application scalability.

Projects

Object Segmentation System for Indoor 3D Model Editing Using NeRF

- Developed an AI-powered object segmentation system for 3D model editing in indoor environments.
- Implemented NeRF, Stable Diffusion, Inpainting, and Image Segmentation techniques to enhance model accuracy.
- Utilized PyTorch and CUDA for deep learning model training and inference.
- Managed dependencies and testing using Conda and ensured version control with Docker.

RAG ChatBot

- A web application for asking questions in natural language about the Mexican DOF. Collaboratively developed a Retrieval Augmented Generation (RAG) for a Large Language Model (LLM) to generate resumes and respond to natural language queries about the Mexican Official Diary of the Federation (DOF).
- Used Langserve and Langchain for model retrieval, and Pinecone for vector storage.

Student Management System

- Developed a web-based system that facilitates student enrollment and course assignments for teachers.
- Implemented input validation, responsive design, and database security.

To check out more of my projects, please feel free to visit my own portfolio at <https://oscarjuji.github.io/Portfolio/>

Skills

Technical Skills: Programming Languages: C/C++ (Intermediate), Python (Intermediate), R (Basic), Java (Intermediate), JavaScript (Intermediate), Web Development: HTML, CSS (Intermediate), SQL (Intermediate), Git (Intermediate), Excel

(Intermediate), Scrum, Design Thinking, Extreme Programming, Data Processing & Analysis

Technologies: Git (Intermediate), Google Cloud(Intermediate), Docker(Intermediate), MLFlow (Beginner), Kubernetes (Beginner), Azure (Beginner).

Soft Skills: Critical & Creative Thinking, Resilience, Adaptability, Ability to Work Under Pressure, Problem-Solving Proactivity, Responsibility, Team Collaboration

Languages: English/B2, Spanish - Native