Daniel Isaí Catonga Tecla

J (+52) 735 250 0453 ■ daniel.ctecla@gmail.com

EDUCATION

National Polytechnic Institute (ESCOM-IPN)

Mexico City, Mexico

Bachelor of Engineering in Artificial Intelligence. GPA (3.7)

Expected Graduation date: December 2026

• Relevant Courses: data structures and algorithms, databases, probability, and statistics

Projects

Dev Interview | React, JavaScript, Gemini-LLM

July 2024

- Engineered a website to improve technical skills for interviews by providing performance feedback and metrics.
- Scored individuals based on their answers to questions using JavaScript and Gemini, ensuring accurate feedback.
- Integrated Gemini-LLM API and configured parameters such as system and temperature for optimized evaluation.

Binary Classifier $\mid C++, ML \ algorithms$

- Developed a prototype binary image classifier using the k-nearest neighbors algorithm for image classification.
- Implemented k-means++ clustering to segment images and used area and perimeter for KNN classification.
- Created a dataset for image classification, achieving a 75% accuracy rate using a confusion matrix.

Intelligent Agent | Python, Pygame, Heuristic Algorithm

March 2024

- Built an agent designed to navigate in a board, gathering samples and identifying the shortest route to the base.
- Utilized the A* algorithm to optimize agent navigation, leveraging its heuristic-based approach for route finding.
- Created a dynamic random board generator using Pygame, employing object-oriented programming.

Innovalab | Html, Tailwind, Css, JavaScript

June 2022

- Collaborated on an interactive educational web platform focused on simplifying the subject of parasitology to provide a user-friendly learning experience for students, ensuring accurate information from reliable sources.
- Engineered the interactive frontend with JavaScript and Tailwind CSS, enhancing user experience.

Awards

Talent Land Hackathon 2024 - Coppel Foundation | 1st place

April 2024

- Achieved 1st place out of 15 teams in a national competition aligned with SDGs as part of a 4-person team.
- Built the statistical and graphical logic using JavaScript, creating a tool that empowers microentrepreneurs with essential insights for informed decision-making.

HackMexico Hackathon 2024 | semi-finalist

April 2024

- Participated as a member of a 4-person team in a national competition among 18 teams, reaching the semifinals.
- Developed the frontend of a digital platform promoting accessible tourism in Mexico using React, Tailwind CSS and JavaScript, ensuring inclusive travel experiences for all.

Extracurricular

ESCOM Competitive Programming Club

Sep 2023 – Present

- Participated in the "Gran Premio de México ICPC 2023" with the team "Una línea a la vez".
- Analyzed and solved programming challenges by leveraging data structures for efficient solutions, using C++.

SKILLS

- Languages: C++/C (2 years), Python (1.5 years), JavaScript (Beginner).
- Developer Tools: Git, GitHub (1.5 years), PostgreSQL (1 year)
- Libraries: Pandas, NumPy, Matplotlib, (Beginner): TensorFlow, Scikit-Learn, React.
- Certifications: Supervised Machine Learning: Regression and Classification by coursera, Advanced Learning Algorithms by Coursera.