Mario Rosas Otero

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Personal Goal

As a technologist, I want to continuously expand my theoretical and technical knowledge to deliver high quality solutions. My goal is to contribute to innovative and impactful projects, leveraging my problem-solving skills and creativity to design efficient and scalable code. I strive to stay abreast of the latest technologies and best practices, adopting a collaborative and agile approach. I am a pro-active, communicative, responsible person with leadership skills if needed.

Professional Experience

2023	**Data engineer, Sopris Technologies** • *ETL processes, data visualization and predictive models. Google Cloud Platform. Docker. VMware.*
2020	**Research Internship, Center for Research in Computing, IPN** • *Study of biometric cryptosystems and their adaptation to post-quantum scheme - Python, Matlab*
2020	**XXX Summer of Scientific Research, Mexican Academy of Sciences** • *Preprocessing, feature engineering and classification of images with infected cells of three different types of acute lymphoblastic leukemia.* - Matlab
2018-2020	**Research Internship, Institute for Research in Applied Mathematics and Systems, UNAM** • *Integration of a human pose detection system to the service robot Golem-III.*- Prolog, C++, Python

Education

2023-2025	**Master's degree in Artificial Intelligence, UPC** • Focused on Machine Learning, Computer Vision and Natural Language Processing.
2017-2021	**Bachelor's of Science in Technology, FESC, UNAM** • Graduated with honors • Thesis: Classification of pathologies on chest radiographs using convolutional neural networks.

Courses

2023	**Java Full Stack Developer Bootcamp, Generation México.** • Training on Java, JavaScript, SQL, HTML & CSS for Web Development.
2021	**Generative Deep Learning - Creative AI, Actumlogos.** • Neural models to generate faces, paint, write, compose music and play video games. - Python
2020	**Deep Learning for Images, Actumlogos** • Deep Learning to automatically classify, detect, and segment images. - Python
2019	**Sensors, robots, and the human-computer interface, CdCMx** • Summer Program, Science Clubs Mexico. - Python
2018	**Intelligent automata - mechatronics and machine learning, CdCMx** • Summer Program, Science Clubs Mexico. - Python, Raspberry Pi

Software

Low	• Maple, Wolfram Mathematica, Arduino, Prolog, C, React, Spring
Medium	• C++, Java, HTML, CSS, SQL, Git, Linux, Julia, Tensorflow, Robot Operative System(ROS)
High	• Python, Matlab, LaTeX, Office, Scikit-learn, Pytorch, JavaScript

Languages

Spanish	**Native Speaker**
English	**Intermediate-Advanced (TOEFL Certification)**
French	**Basic**

❱❱❱ Papers & Conferences

2022 — ***Computing and Systems* Magazine**

- Paper: *A New Fuzzy Vault based Biometric System Robust to Brute-Force Attack*

2021 — **IV Student Congress of Artificial Intelligence Applied to Engineering and Technology**

- Project: *Fuzzy Controller for an Automatic Irrigation System*

2021 — **Research in Computing Science Magazine & XIII Mexican Congress of Artificial Intelligence**

- Paper & Presentation: *Smart Traffic Light Using Digital Image Processing Controlled by the Rosenblatt's Perceptron*.

2020 — **Iberoamerican Canned Satellite Competition - CAELUM Team, PEU, UNAM**

- Third place in the challenge organized by UNAM's University Space Program.

2019 — **II Student Congress of Artificial Intelligence Applied to Engineering and Technology**

- Project: *Improved ASK behavior to enhance human-robot interaction in the GOLEM-III service robot.*