# Last Updated on 10th March 2025 Daniel Iván Parra Verde

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# **EDUCATION**

#### **UNAM-CFATA**

2021 | BSc. TECHNOLOGY

### **GRONINGEN UNIVERSITY (G)**

2019 | BSc. Al

Netherlands; Full Scholarship

#### **UNAM-IIMAS**

2022 MSc. MATHEMATICS

## SKILLS

Programming Languages:

Python • TypeScript • SQL • Julia •

Wolfram • Bash

#### Frameworks:

Django • FastAPI • Airflow • React •

Next.js • Prefect

#### Libraries:

Langchain • LlamaIndex • OpenCV •

• SQLAlchemy • Docling • Pytest

#### Cloud Services:

Hugging Face • AWS SageMaker • AWS S3 • AWS Lambda • AWS API Gateway •

CometML • ZenML • Railway • Vercel •

Stripe • Sendgrid

#### Databases:

PostgreSQL • MongoDB • Qdrant •

Redis • SQLite

#### Software Tools:

Docker • Git • VSCode • Cursor • LATEX

• Microsoft Office • Slack • Notion

English (+C1) • German (+B1) • Spanish **ARXIV DOMAIN EXPERT LLM** 

# COURSEWORK

#### Bachelor

Deep Learning in Python (G)

Relational Databases in **SQL** (G)

Artificial Intelligence in **Python** (G)

Algorithms and Data Structures in **C** (G)

Linear Algebra

Differential Equations Series

#### Master

Statistical Inference

Theoretic Machine Learning

Information Theory Statistical Foundations of Privacy Numerical Analysis Python, Julia Real and Functional Analysis

# **WORK EXPERIENCE**

### AI ENGINEER

MXAI | November 2025 - Present | Remote

- Developed and deployed Al-powered solutions on AWS with event-driven architectures for Al agents with Langchain and RAG.
- Built corporate websites using the modern tech stack of **Next.is**. **TypeScript**. Tailwind and shadon/ui for mobile first responsive designs.
- Led customer sales meetings and demo presentations to iterate on requirements and validate value propositions.

#### **DATA SCIENTIST**

Kuona | November 2023 - June 2024 | Remote

- Developed RNNs for sales forecasting with PyTorch, served through a batch ML system hosted in AWS. Ensured availability of predictions for clients to simulate revenue management scenarios with Django and PostgreSQL.
- Proposed using **QLora** for model fine-tuning and custom loss functions to improve business KPIs.
- Modeled competitors' pricing data and implemented LIME for demand elasticity analysis using Pandas, Pytorch, Scikit-Learn, and PostgreSQL.

#### DATA SCIENTIST JR.

Pandas • PyTorch • Scikit Learn • Numpy Entropía Al | February 2023 - November 2023 | Remote

- Led the development of **RAG** pipelines, enhancing accuracy in QA benchmarks for regulatory datasets with LlamaIndex, MongoDB, and LangChain.
- Created ELT pipelines with Python, bs4 and Airflow from scrapped Mexican Political System websites into MongoDB.
- Contributed to the agile development of Icaro AI web app hosted in Heroku.

### **DEVELOPER INTERNSHIP**

Wolfram Research | February 2021 - February 2022 | Remote

- Built the 'Wolfram Summer Camp' website with Wolfram One's cloud.
- Published "Turing Patterns in Networks" in their Complex Systems Journal.
- Rotated into Wolfram Alpha software development team.

# **PROJECTS**

GitHub Repository

- Developed ML pipeline and created custom finetunning datasets in Hugging Face for an ArXiv-specialized LLM, trained and deployed on AWS SageMaker.
- Utilizes MongoDB, Qdrant, ZenML, CometML, and AWS for infrastructure.

#### MASTER THESIS: NEURAL MODEL IDENTIFICATION WITH EKF

PhD. Esteban A. Hernandez-Vargas | Systems Medicine of Infectious Diseases

- Implemented a custom training algorithm (weight update rule) for recurrent neural networks using the Extended Kalman Filter Theory.
- Error analysis of optimization, approximation, and statistical generalization.

#### "CONVOCATORIA JÓVENES TALENTOS 2018" CONCYTEC

PhD. Rafael Chávez Moreno | Unit of High Technology Juriquilla, Qro.

- Secured funding (\$89,000 MXN) for the design and manufacture of a Rover.
- Led the development of the computer vision and path planning subsystems using Python, Raspberry Pi, and Kinect sensors.