Daniel Ván 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 •

Pandas • PyTorch • Scikit Learn • Numpy

• 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

Language:

English $(+C1) \cdot German (+B1) \cdot Spanish$

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

FOUNDER & AI ENGINEER

MXAI | January 2024 - Present | Remote

- Developed and deployed Al-powered solutions using **AWS Lambda**, **Redis**, and event-driven architectures, similar to **Google Cloud Functions**, for chatbot backends with **Langchain** and **RAG**.
- Built corporate website using modern tech stack (**Next.js**, **TypeScript**, **Tailwind**, **shadcn/ui**) with responsive design.
- Led customer sales meetings and demo presentations, enhancing client engagement and satisfaction.

DATA SCIENTIST

Kuona | December 2023 – May 2024 | Remote

- Developed **RNNs** with **PyTorch** and served them through a batch ML system using **Django** ORMs and **PostgreSQL** for client and operations team to simulate revenue management scenarios.
- 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.

Entropía AI | February 2023 - November 2023 | Remote

- Led the development of **RAG** pipelines, enhancing accuracy in QA benchmarks for legal and academic datasets with **LlamaIndex**, **MongoDB**, and **LangChain**.
- Created **ELT** pipeline with **Python**, **bs4** and **Airflow** from scrapped Mexican Political System data 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' app with Wolfram One's cloud.
- Rotated into Wolfram Alpha software development team.

PRO JECTS

ARXIV DOMAIN EXPERT LLM

GitHub Repository

- Developed ML pipeline and created custom finetunning datasets in **Hugging**Face for 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 computer vision and path planning subsystems using **Python**, **Raspberry Pi**, and **Kinect** sensors.