Daniel Iván Parra Verde

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EDUCATION

UNAM-CFATA
2021 | BSc. Technology

GRONINGEN UNIVERSITY (G)
2019 | BSc. AI
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

Languages
English (+C1) • German (+B1) • 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 AI-powered solutions using **AWS Lambda** , **Redis** , and event-driven architectures, similar to **Azure 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.

PROJECTS

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.