

Daniel Iván Parra Verde

ML Engineer • Production ML • forecasting • RAG/agents • since 2023 (+3 years)
 Portfolio: danivpv.com | GitHub: danivpv | LinkedIn: danivpv | HuggingFace: danivpv
 Tel. +52 844 783 6082 | danivpv@outlook.com | Saltillo, México

EDUCATION

UNAM-CFATA

2021 | BSc. TECHNOLOGY

GRONINGEN UNIVERSITY (G)

2019 | EXCHANGE (AI/CS)

Netherlands; Full Scholarship

UNAM-IIMAS

2022 | MSc. CANDIDATE IN MATH

SKILLS

AI and ML Libraries:

PyTorch • LangChain • LlamaIndex •
 Hugging Face • scikit-learn • Pandas •
 NumPy • Docling • Gemini • OpenAI •
 Anthropic • OpenCV

Frameworks:

FastAPI • Temporal • Spark • Next.js •
 SQLAlchemy • Django • Kafka

Cloud Services:

AWS EMR • AWS S3 • AWS SageMaker
 • AWS Lambda • AWS CloudWatch •
 AWS API Gateway • AWS ECS

Databases:

PostgreSQL • MongoDB • Redis •
 Qdrant • SQLite

Programming Languages:

Python • SQL • Bash • TypeScript •
 Terraform • Julia • Wolfram

Software Tools:

Docker • Git • GitHub Actions • Sentry
 • Postman • $\LaTeX$ • Notion

Spoken Languages

English (+C1) • German (+A2) • 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

Master

Statistical Inference
 Theoretic Machine Learning
 Information Theory
 Statistical Foundations of Privacy
 Numerical Analysis **Python**, **Julia**
 Real and Functional Analysis

WORK EXPERIENCE

SENIOR DATA SCIENTIST

Arkham Technologies | April 2025 – Present | Remote

- Scaled 1K JUMEX models on 100 **EMR Serverless** workers via **Spark**, **Temporal**, **Kafka**, **FastAPI**; integrated into ML platform (**SDK**, **Livy**).
- Automated AI agent monitoring via verifiable metrics and LLM-as-Judge via **FastAPI**, **PostgreSQL**, **Temporal** and Arkham's dashboard.
- Led CI/CD of PyPI and **Docker** for staging and prod ML platform via **AWS EMR**, **GitHub Actions**, **Terraform**. 25% memory, 10× faster vs baseline.
- Engineered cross-provider LLM integrations for AI agent with 100+/week users.
- Debugged **FastAPI/Kafka** ML and AI microservices via **CloudWatch** and **Sentry**.

AI ENGINEER

MXAI | November 2024 – April 2025 | Remote

- Ran client discovery and shipped deployable catalog and FAQ AI agent MVPs (+95% recall@3 on 10% of SKU) with **Next.js**, **AWS**, **LlamaIndex** and **Redis**.

DATA SCIENTIST

Kuona | November 2023 – June 2024 | Remote

- Tuned **PyTorch RNNs** for sales forecasting in enterprise retail revenue management for major clients (12% forward MAPE); **AWS** batch ML via **Django**.
- Modeled competitors' pricing data, reducing forecasting MAPE by 40% and enabling price-demand elasticity analysis via **Pandas** and **scikit-learn**.
- Designed QLoRA and sales-weighted loss functions for revenue KPIs.

DATA SCIENTIST JR.

Entropia AI | February 2023 – November 2023 | Remote

- Built 8 **ETL** pipelines (**Python**, **bs4**, **Airflow**) ingesting 2K docs with 100M+ tokens from official Mexican government sites into **MongoDB** for legal partners.
- Engineered **RAG** pipelines; raised custom QA LLM-as-Judge accuracy from 8% to 72% on legal corpora using **LlamaIndex**, **MongoDB** and **LangChain**.

SOFTWARE DEVELOPER (CONTRACT)

Wolfram Research | February 2021 – February 2022 | Remote

- Sysadmin. Fullstack dev of portal for "Wolfram Summer Camp" (+40 users).
- Published paper "Turing Patterns in Networks" in Complex Systems Journal.

PROJECTS

ARXIV DOMAIN EXPERT LLM

GitHub Repository

- Developed custom fine-tuning datasets in **Hugging Face**, fine-tuned Llama-3.2-3B on **AWS SageMaker** and deployed with vector database **Qdrant**.
- Automated experiment tracking using **ZenML**, **CometML** and **MongoDB**.

MASTER THESIS: NEURAL MODEL IDENTIFICATION WITH EKF

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

- Derived robust EKF weight update rule for RNNs, maintaining stability up to 20% signal-to-noise ratio in viral time-series modeling of SARS-Cov-2, HIV, etc...

"CONVOCATORIA JÓVENES TALENTOS 2018" CONCYTEC

Ph.D. Rafael Chávez Moreno | Unit of High Technology Juriquilla, Querétaro

- Secured \$89,000 MXN funding; led Rover CV/path planning and presentations.