ALEJANDRO ORTIZ PERDOMO

AI Engineer | Machine Learning Engineer

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🌐 alejortizp.github.io/curriculum_HV

PROFESSIONAL SUMMARY

Machine Learning Engineer with end-to-end experience from experimentation to production. Specialized in predictive models (**churn, propensity, NBO**) with quantifiable impact: **Lift 3.0**, **+15%** conversion, **+60%** contactability. Proficient in **Scikit-learn, LightGBM, PyTorch** and **Databricks + MLflow** for MLOps. Combines strong mathematical foundation (Statistics) with modern software engineering to build reliable and scalable ML pipelines.

WORK EXPERIENCE

AI Developer Consultant
Jun 2025 – Present

Periferia IT

- **CV-Job Matching System:** Built complete pipeline with **Azure Document Intelligence** + **AI Search** processing 500+ CVs/day with 95% extraction accuracy. Semantic search with embeddings reduced screening time by **70%**.

- **Intelligent Automation:** Implemented vectorization and optimized semantic chunking for candidate-job matching, improving recommendation quality by **40%** vs. traditional keyword search.

- **Impact:** System handling **10k+ searches/month** with <200ms latency. Stack: Python, Azure AI Search, Document Intelligence, FastAPI.

EDUCATION

Master in Software Engineering
Universidad de los Andes
2025 – In Progress

B.S. in Statistics
Universidad del Valle
2011 – 2016

Data Science Diploma (DS4A)
Correlation One, 2022

Deep Learning Diploma
Univ. Autónoma Occidente, 2023

LANGUAGES

🇪🇸 **Spanish**
Native

🇬🇧 **English**
Professional Proficiency (B2/C1)

KEY SKILLS

Effective Communication

Problem Solving

Analytical Thinking

Team Collaboration

Adaptability

Continuous Learning

Time Management

Technical Leadership

Machine Learning Engineer
Global Hitss
Sep 2023 – Jun 2025

- **GenAI & RAG:** Designed and deployed conversational agent with RAG that reduced support tickets by **40%**, processing **10k+ queries/month** with 85% resolution without escalation. Stack: LangChain, Azure OpenAI, FAISS.
- **MLOps:** Implemented CI/CD pipeline in **Databricks + MLflow** reducing deployment time from 2 weeks to **2 days**. Production models with automatic drift monitoring and retraining.
- **Reinforcement Learning:** Productized *Next Best Offer* (NBO) system with A/B testing that increased conversion by **15%** and revenue by **$10k per person**.
- **Churn Model:** Developed predictive model with **Lift of 3.0** and 82% recall in top decile, integrated to CRM for proactive retention. Impacted **50k+ customers**.

Machine Learning Consultant
Grupo CINTE
Aug – Sep 2023 (Short-term project)

- **ML Observability:** Designed comprehensive monitoring methodology for *data/model drift* detection with automated retraining alerts, adopted as the data science team's standard.
- **Optimization:** Audited and optimized LightGBM and Random Forest algorithms, improving computational efficiency and reducing inference times.

Data Scientist
NAE
Mar 2023 – Jul 2023

- **Contactability Model:** Developed **LightGBM** model that increased effective contact rate by **60%** (from 25% to 40%), optimizing time windows and channels. Impacted campaigns with **100k+ contacts/month**.

Data Scientist II
Xolit
May 2022 – Jan 2023

- **Payment Propensity Model:** Developed predictive model for payment probability and portfolio agreement, maximizing collection through **automated management priorities** based on propensity scores.
- **Recommendation System:** Implemented optimal contact time-slot recommendation engine per account holder, increasing debt collection management effectiveness.
- **Customer Segmentation:** Designed clustering-based marketing strategy for account holders, enabling personalized communication per segment to optimize collection rates.
- **Monitoring:** Built **Power BI** dashboards for tracking collection KPIs and production model performance metrics.

CERTIFICATIONS

AI-102: Microsoft Certified Azure AI Engineer Associate
Udemy, Feb 2026

NLP Specialization (RAG/Transformers)
Coursera, Jun 2025

PyTorch Ultimate
Coursera, Mar 2025

MLOps and Databricks
Netec, Dec 2024

AWS Cloud Practitioner
Udemy, Feb 2022

TECHNICAL SKILLS

(years exp.)

GENAI & LLMS

LangChain 2+ (Agents, RAG)
Azure OpenAI 2+ (GPT-4, Embeddings)
Prompt Engineering 2+
Vector DBs 2+ (FAISS, Pinecone)

AZURE AI & CLOUD

Azure AI Search 1+
Document Intelligence 1+
Databricks + MLflow 3+

ML/DL FRAMEWORKS

PyTorch 2+ | **TensorFlow 3+**
Scikit-learn, XGBoost, LightGBM 4+
Hugging Face Transformers 2+

MLOPS & ENGINEERING

Python, SQL, PySpark 7+
Docker, CI/CD 2+
FastAPI, Streamlit 3+
Git, GitHub Actions 4+

OPEN SOURCE PROJECTS

🤖 Email Agent with LangChain

— github.com/alejortizp/email-agent

Intelligent agent that queries emails via IMAP, classifies with LLM, and generates contextual automatic responses. Reduces response time by **80%**.

Stack: LangChain, Azure OpenAI, IMAP, Python, Prompt Engineering

💬 NL-to-SQL/Pandas Agent

— github.com/alejortizp/nl-to-code

Agent that translates natural language to SQL queries and Pandas operations. Includes code validation, secure sandbox execution, and automatic results visualization.

Stack: LangChain, SQL, Pandas, Code Interpreter, ReAct Pattern

🛒 RAG Restaurant Ordering System

— github.com/alejortizp/rag-ordering

Conversational ordering system with RAG over restaurant menu. Agent processes product selection in natural language, generates invoices, and calculates totals. Includes inventory management.

Stack: LangChain, FAISS, Azure OpenAI, FastAPI, Streamlit