Ariel Luján Giamportone

AI & Software Engineer · Data Products and Platforms

Software and applied AI engineer who builds complete data products: Python backends (FastAPI, SQLAlchemy, PostgreSQL/SQLite), web (Jinja2/HTMX, Streamlit) and desktop interfaces (Tkinter, PySide6, PyInstaller), LLM, OCR and vision integration, deployment on Azure and Microsoft 365, and ENS/GDPR compliance. At Intervalor Data I started INTERDATA (fixed-asset SaaS for companies) and put a dashboard for AENA into production with Entra ID. I work with agent-assisted development (Claude Code) and document every repository for humans and agents (AGENTS.md, ADRs, CHANGELOG).

CONTACT

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EDUCATION

Fisheries Engineer
Universidad Tecnológica Nacional (UTN) · 2006 – 2016

University Fisheries Technician
Universidad Tecnológica Nacional (UTN), Facultad Regional Río Grande (Extensión Áulica Ushuaia) · 2006 – 2014

MBA in Logistics and Operations Management (COO), university-specific master's
TECH Universidad Tecnológica · 01/2020 – 06/2024

Master's in AI Development
The BIG school · 04/2026 – 08/2026

Data Analytics — Computer Science
Upgrade Hub · 11/2023 – 02/2024

Diploma in Environmental Management
UTN FRRe (Facultad Regional Resistencia Chaco) · 2020

Diploma in Integrated Quality Management
UTN FRRe (Facultad Regional Resistencia Chaco) · 2019

LANGUAGES

Spanish — Native (C2)
English — Professional (B2-C1)
Italian — Professional (B2)

SKILLS

FastAPI · SQLAlchemy / Alembic · Pydantic · LLM APIs (OpenAI, Anthropic, Gemini) · Ollama / modelos locales (deepseek-ocr, Llama, Qwen) · RAG / embeddings / ChromaDB · Python · SQL · R · Azure Static Web Apps / Azure Functions · Microsoft Entra ID (roles, SSO) · SharePoint / Graph API / OneDrive

EXPERIENCE

Data, AI & Product · Technology Department (IT & Innovation) — 06/2025 – Present
Intervalor Data · Madrid and Barcelona, Spain (hybrid)

- Designed and built INTERDATA, a fixed-asset SaaS for companies: schema-per-tenant, MFA, hash-chained audit log, QR-verifiable PDF certificates and a depreciation engine that matches the legacy system to the cent
- Put into production the commercial-controls dashboard for AENA at Madrid-Barajas Airport (Azure Static Web Apps + Entra ID, incremental pipeline over a third-party API, 99.95% SLA) and automated its monthly and annual reports (121 tests)
- Modernised a 1990s Delphi/Paradox fixed-asset system into Python with numerical parity to the cent (544 tests, 99.97% of rows migrated)

SELECTED PROJECTS

trawlkit · Trawl Design Lab · 2024 – Present
Calculation engine for the design and sizing of trawl nets: an evolution of the FAO A-3 spreadsheet model for 150-180 HP vessels in the Beagle Channel, rebuilt as reproducible, tested software.

cfp-audit-intelligence · 11/2025 – 08/2026
Multi-LLM RAG platform (OpenAI, Anthropic) to audit the minutes of Argentina's Federal Fisheries Council: FastAPI, Streamlit, ChromaDB, open data and responsible AI.

asset-identity-gs1 · 11/2026
Physical identity for inventory assets with GS1 standards: each asset gets one identity in four equivalent forms (canonical GIAI AI 8004, a readable alias with a mod-43 check character for Code128, EPC GIAI-96 for UHF RFID and GS1 ...

catastro-enrichment-es · 11/2026
Enrichment of real-estate inventories with Spain's five cadastres (national DGC and the regional ones of Álava, Bizkaia, Gipuzkoa and Navarre) behind a single interface routed by municipality code; Nominatim geocoding as fallback ...

KIPPA I — ROV with open hardware and software · 2015 – 2016
Remotely operated underwater vehicle built entirely with open hardware and software and locally sourced materials, to inspect hulls, gear, propellers and rudders of small fishing vessels. Presented at the 9th National Congress of ...

paradox-db-py · 11/2026
Pure-Python reader and writer for Paradox tables (.DB data, .MB memos/BLOBs, .PX primary index), versions 3.0 to 7, with no native or copyleft dependencies. Explicit per-cell status (OK / NULL / INVALID) with raw bytes, per-table ...

periodic-report-kit · 11/2026
Declarative periodic reports: tabular input with domain rules (unknown rows quarantined) and branded Word, PDF and PPTX output. Full-bleed cover outside the page numbering, a real Word table of contents, YAML catalogue of sections ...

Clean-room case studies · 10/2026
multi-tenant-asset-register (multi-tenant asset register, migration reconciled to the cent, explainable depreciation engine; FastAPI, PostgreSQL, SQLite, Docker), field-inspections-dashboard (incremental pipeline over a ...

Projects with demos, publications and the full track record at https://arielgiamportone.github.io/en/profiles/software/