

# Matias Pedro Estigarribia

Python Backend Developer | Django | FastAPI | Cloud

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## Professional Summary

Full-cycle software developer with hands-on experience in planning, executing, and maintaining web applications. Focused on the Python ecosystem (FastAPI, Django), RESTful API development, and Cloud infrastructure (GCP). Trilingual professional with a background in leadership, applying assertive communication and agile methodologies to deliver functional, scalable, and well-structured code solutions.

## Professional Experience

**Software Developer (Freelance / Independent)** Aug 2025 – Present

**Project: AI-Integrated Web Platform (Serverless Architecture)** *Developed an end-to-end web application with generative AI capabilities, acting across the entire software development life cycle, from requirements gathering to production deployment.*

- **Backend & Data:** Developed an asynchronous API with FastAPI, using Pydantic for schema validation and type hints. Relational database modeling with SQLAlchemy (ORM), version control via Alembic migrations, and an integrated admin panel using SQLAlchemy Admin. Image processing with Pillow.
- **GenAI & RAG Architecture:** Implemented a context-aware chatbot using LangChain for LLM orchestration (OpenAI, Groq). Built a Retrieval-Augmented Generation (RAG) architecture connected to a Neon PostgreSQL database using the pgvector extension for similarity search.
- **Frontend Development (Human-in-the-Loop):** Accelerated UI construction using AI agents with custom MCP (Model Context Protocol) servers, applying continuous human validation to ensure the accuracy of the generated code.
- **Cloud Infrastructure & DevOps:** Containerized application deployment in a serverless environment on Google Cloud Run. DNS routing configuration and static asset object storage using Cloudflare R2.

**Project: MOB VAP Educational Platform** *Development and active maintenance of an open-source digital platform for a science and innovation event organized by CIEBP in partnership with the São Paulo State Department of Education and other organizing institutions.*

- **Backend Architecture:** Built a RESTful API with Django and Django REST Framework (DRF), implementing custom serializers and viewsets. Deployed using Gunicorn (WSGI) and Nginx (reverse proxy) in a containerized architecture via Docker Compose.
- **CI/CD & Quality:** Implemented a GitHub Actions pipeline for automated test execution (pytest, unittest), ensuring higher deployment reliability and safe regressions.
- **Resilience Engineering:** Integrated Azure AI Content Safety for automated comment moderation. Implemented fallbacks with mocked services (unittest.mock) to maintain application availability and prevent 500 errors for end-users during external API instabilities.
- **Cloud Infrastructure:** Virtual machine provisioning on Google Compute Engine, bucket configuration in Cloud Storage, and PostgreSQL database modeling.

## Technical Skills

- **Languages:** Python, SQL (PostgreSQL), JavaScript (ES6+), HTML5, CSS3.
- **Python Ecosystem:** FastAPI, Django, Django REST Framework, Pydantic, SQLAlchemy, Alembic, pytest, unittest.
- **GenAI & ML:** LangChain, RAG, OpenAI API, Groq, pgvector.
- **Infrastructure & DevOps:** Docker, Docker Compose, GitHub Actions (CI/CD pipelines), Nginx, Linux (server management).
- **Cloud Platforms:** Google Cloud Platform (Cloud Run, Compute Engine, Cloud Storage), Azure AI, Cloudflare (DNS, R2), Neon DB.

## Languages

- Spanish (Native) | Portuguese (Fluent) | English (Fluent)

## Education

- **Bachelor's in Information Systems** (Degree Holder Entry - 3rd Semester) | Faculdade Impacta  
(Expected: Dec 2028)
- **Associate's Degree in Systems Analysis and Development** | Universidade Paulista (UNIP)  
(Completed: Jan 2026)

## Certifications and Professional Development

- **Microbadge in Generative AI Fundamentals** | Immune Technology Institute (Powered by AWS) (Jun 2025)
- **Certified Scrum Developer** | International Scrum Institute (Jan 2025)
- **Diploma in Python Programming** | Universidad Tecnológica Nacional (UTN), Argentina (Jul 2022 - Jan 2023)