

Jason Nicolás Arias Gómez

Python Backend Engineer — FastAPI · PostgreSQL · Docker · Linux

Bogotá, Colombia (open to remote) · jn.arias@uniandes.edu.co · github.com/JsNcAr · linkedin.com/in/jason-nicolas-arias-gomez-50127b248

SUMMARY

Python backend engineer with 2+ years building and running production APIs end to end: asynchronous FastAPI services on PostgreSQL, hardened OAuth2/JWT authentication, Dockerized deployments on Debian servers, and CI/CD pipelines that ship to production on merge. Comfortable owning the whole path from schema design to reverse proxy and TLS, and equally at home in data-heavy work — automated pipelines, sensor-fusion algorithms, and LLM integrations. Physics background (Universidad de los Andes) behind the mathematical side.

TECHNICAL SKILLS

Languages	Python (primary), SQL, Kotlin (basic), Bash
Backend	FastAPI, SQLAlchemy, Pydantic, PostgreSQL, REST APIs, WebSockets, Webhooks, OAuth2, JWT, RBAC, bcrypt, Microservices
Infrastructure & DevOps	Linux (Debian/Ubuntu) administration, Docker, systemd, GitLab CI/CD, GitHub Actions, Caddy reverse proxy (TLS/HTTPS), Hetzner Cloud, on-prem servers, Git
Data & AI	Pandas, NumPy, Selenium, OpenCV, OpenAI API (RAG), prompt engineering, Extended Kalman Filters, exploratory data analysis
Languages spoken	Spanish (native), English (professional working), Japanese (elementary)

EXPERIENCE

Lead Backend & DevOps Engineer (COO) — Apollyon S.A.S

Offline-first proximity tracking & communication platform. Sole backend and infrastructure owner.

- Built the platform's fully asynchronous REST API in Python (FastAPI, SQLAlchemy, PostgreSQL), designing the schema, migrations and error contracts from scratch.
- Implemented multi-layered authentication — OAuth2, signed JWTs and API keys with 12-round bcrypt hashing — securing all user and device endpoints.
- Containerized every service with Docker and systemd on company-owned Debian servers, with Caddy handling edge routing and automatic TLS for the production API.
- Deployed a self-hosted GitLab instance and CI/CD pipelines that push backend updates to production on merge, plus branching rules and internal docs on GitLab Pages.
- Engineered a Bluetooth Low Energy mesh network for offline telemetry, applying Extended Kalman Filters and RSSI smoothing to turn noisy radio signals into usable spatial positioning.

Backend & Data Engineer, Head of Engineering (CTO) — Personally AI

AI automation studio. Grew engineering from a solo operation to a team of 5 while remaining hands-on.

- Designed and shipped secure REST APIs with FastAPI, Pydantic and SQLAlchemy, standardizing JWT and API-key authentication across client-facing endpoints.
- Automated reporting for a marketing agency running 60+ client accounts — Selenium extraction from Meta Business Suite plus Pandas cleaning and analysis — replacing manual reports and cutting reporting effort by ~80%.
- Built a CRM and lead-generation service processing thousands of leads per run via the Apollo API, using optimized queries and background task management for high-volume workloads.
- Ran hybrid infrastructure (Hetzner Cloud + on-prem Debian) with Docker and Linux daemons, and reviewed architecture for an LLM lead-scoring chatbot integrated with HubSpot.

EXPERIENCE (CONTINUED)

Backend Engineer / Co-CTO — Atonga

Oct 2024 – Jun 2025 · Bogotá

AI-driven multichannel e-commerce platform for small entrepreneurs.

- Co-designed the backend architecture in Python and FastAPI over PostgreSQL, serving real-time requests from web and chat clients.
- Integrated an LLM-powered assistant that lets sellers manage storefronts and buyers find products conversationally.
- Set engineering standards and remote workflows for the team, coordinating delivery through Jira and Slack.

Python Developer — Personally AI

May 2024 – Oct 2024 · Bogotá

- Built an OCR pipeline for complex documents combining OpenCV preprocessing, Tesseract and the GPT-4o vision model for high-accuracy extraction.
- Delivered Python automation tools that removed repetitive manual steps from client operations workflows.

Teaching Assistant — Universidad de los Andes

Feb 2020 – Jun 2020 · Bogotá

- Supported coursework grading and student feedback for an undergraduate art history course.

EDUCATION

BSc Physics (in progress) — Universidad de los Andes, Colombia

2018 – present

Coursework in mathematical modeling, numerical methods, statistics and computational physics. Recipient of the national "Ser Pilo Paga" merit scholarship.

CERTIFICATIONS

- FastAPI: Databases, Modularization and Production Deployment — Platzi
- Python Professional — Platzi
- Exploratory Data Analysis — Platzi
- Internet Computer Networks — Platzi
- Prompt Engineering with ChatGPT — Platzi

SELECTED TECHNICAL HIGHLIGHTS

- **Sensor fusion at the edge:** Extended Kalman Filter + RSSI smoothing converting volatile BLE radio telemetry into stable indoor positioning.
- **Zero-touch delivery:** self-hosted GitLab with pipelines deploying containerized FastAPI services to bare-metal Debian on merge.
- **Data pipeline at scale:** Selenium + Pandas ETL across 60+ accounts producing automated, AI-summarized reports.
- Code and side projects: github.com/JsNcAr