Luis Pillaga

Senior Software Engineer · Backend, Cloud and Full Stack

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SUMMARY

Senior Software Engineer with six years of remote experience on U.S. teams, building backend services, cloud infrastructure and web applications. Currently at Syngenta through FullStack Labs, building Python and FastAPI services on PostgreSQL/PostGIS and AWS for a geospatial field-trial platform; cut a production endpoint from **320 s to 0.4 s** and ship low-lock migrations on a **20M+ row** database. Previously built a U.S. law firm's AWS infrastructure in Terraform (**30% faster** deployments) and an OpenAI chatbot and document generator that saves its legal team about **6 paralegal hours a week**, and moved **106 services** to Kubernetes. Master's in Applied AI. Comfortable owning features end to end, from the data model to production incidents.

SKILLS

Languages: Python, Java, TypeScript, JavaScript, Kotlin, SQL

Backend: FastAPI, Django, Spring Boot, Celery, RabbitMQ, REST APIs

Frontend: React, Angular, Vue.js, Next.js

Data: PostgreSQL, PostGIS, MariaDB, Oracle, Debezium (CDC), Apache Iceberg

Cloud and DevOps: AWS (EKS, SNS/SQS, EventBridge, S3), Terraform, Kubernetes, Docker, Jenkins, CI/CD

Observability: Datadog, Grafana, Loki

AI: OpenAI API, YOLOv8, TFLite/LiteRT, Claude Code

PROFESSIONAL EXPERIENCE

FullStack Labs

Remote · 06/2025 – Present

Nearshore software consultancy that provides engineering teams to U.S. enterprises.

Senior Software Engineer · Syngenta

- Build backend services for Syngenta's geospatial field-trial platform in Python and FastAPI, on PostgreSQL, PostGIS and AWS.
- Cut a production endpoint from **320 s to 0.4 s** by fixing stale planner statistics, and turned geometry searches into sub-millisecond index scans.
- Ship low-lock schema migrations on a **20M+ row** PostgreSQL/PostGIS database (lock timeouts, batched backfills, concurrent indexes) as versioned releases through dev, test and UAT.
- Led the parity review between the production platform and its microservices redesign, and shipped the fixes across **6 repositories**.
- Owned the migration of **~10M records per environment** off the legacy platform, and built event-driven integrations with the systems around it using SNS/SQS, EventBridge and a Debezium CDC pipeline to S3/Iceberg.
- Handle production incidents end to end with Datadog, Loki and query-plan analysis, and write up root causes for the team.

Python, FastAPI, PostgreSQL, PostGIS, AWS, Terraform, Debezium, Iceberg, Claude Code

Devsu

Remote · 09/2021 – 05/2025

Software outsourcing company connecting Latin American engineers with U.S. clients.

Full Stack Developer and DevOps Engineer · Zinda Law Group · 09/2022 – 05/2025

- Built an OpenAI-powered chatbot and automated legal document generation that save the legal team about **6 paralegal hours per week**.
- Built the AWS infrastructure from scratch as code with Terraform, cutting provisioning and deployment time by **30%**.
- Improved core application performance by **20%** by optimizing PostgreSQL queries and refactoring Django, Vue.js and React code.
- Built CI/CD pipelines with automated tests and security checks across several projects.
- Set up new Django and React projects, defining their architecture, stack and development workflow.

Django, PostgreSQL, Vue.js, React, AWS, Terraform, OpenAI API

Full Stack Developer · Banco Pichincha · 09/2021 – 09/2022

- Delivered loan origination and evaluation features for SIMA, the bank's lending platform for Ecuador's micro-business sector, used by credit advisors to approve or deny loans.
- Coordinated backend and frontend work to deliver features on schedule for each release.

Universidad de las Fuerzas Armadas – ESPE

Latacunga, Ecuador · 11/2020 – 09/2021

DevOps Engineer

- Migrated **106 institutional services** to a central Kubernetes cluster.
- Replaced manual deployments to test and production with CI/CD pipelines, using Jenkins for build and test and GitOps continuous deployment to Kubernetes.

Full Stack Engineer

- Led development of a digital medical records system serving **4,459 patients and ~500 clinical interactions per month**, with a Spring Boot REST API and an Angular single-page app.

PlanERP

Cuenca, Ecuador · 02/2018 – 04/2018

Back End Developer (Internship)

- Built a public-employee performance evaluation module for a governmental ERP with the Python-based Tryton framework.

PROJECTS

Software for companies in Ecuador (Tenpisoft)

Multi-tenant SaaS products I designed and built for companies and institutions in Ecuador.

- Platforms for community water boards (customers, meter readings, billing) and for municipal paid parking (WhatsApp bot, prepaid wallet).
- An Android kiosk that reads ID cards to take quorum at assemblies.
- An electronic invoicing API for Ecuador's tax authority (SRI).

Python, Django, TypeScript, Kotlin, PostgreSQL, AWS, Cloudflare, Neon

Master's thesis, UTPL

04/2025 – 04/2026

Mobile prototype that reads water meters automatically, for rural water boards in Ecuador.

- Trained YOLOv8 detectors for the meter window and its digits on a custom dataset, reaching **0.995 mAP50** (meter) and **0.989 mAP50** (digits) on validation.
- Quantized the models to INT8 TFLite and ran them on-device in a Kotlin and Jetpack Compose Android app for real-time reading from the camera.

EDUCATION

Master's in Applied Artificial Intelligence · Universidad Técnica Particular de Loja (UTPL) 04/2025 – 04/2026

Software Engineering · Universidad de las Fuerzas Armadas (ESPE) 01/2015 – 01/2020

CERTIFICATIONS

AWS Certified Solutions Architect – Associate (11/2022) · AWS Certified Cloud Practitioner (09/2022) · HashiCorp Certified: Terraform Associate (12/2022) · Microsoft Certified: Azure Fundamentals (12/2022) · PCEP – Certified Entry-Level Python Programmer (12/2023) · Scrum Master, CertMind (11/2020)