

Christian Otero

AI Engineer | Senior Software Engineer | Product, AI & Cloud Systems

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Professional summary

Software Engineer with 5+ years of experience building and shipping production software across AI-enabled products, backend/API platforms, enterprise fintech, native mobile applications, cloud systems, machine learning, and product delivery. Combines hands-on engineering in Python/FastAPI, Java/Spring Boot, TypeScript, Swift, Kotlin, SQL/PostgreSQL, AWS, Docker, and Kubernetes with product ownership across 0-to-1 discovery, user flows, MVP scope, technical specifications, acceptance criteria, roadmaps, quality gates, and measurable outcomes. Experience includes secure banking systems across Latin America, LLM/code-model evaluation, ML deployment, conversational and agentic workflows, and client-facing software consulting. CAPM-certified, English C1, and comfortable owning ambiguous problems from product framing through architecture, implementation, validation, and release readiness.

Core competencies

Product ownership & delivery: 0-to-1 product framing, PRDs/specifications, user journeys, MVP scoping, roadmaps, backlog shaping, acceptance criteria, Agile/Scrum, stakeholder alignment, release readiness, and outcome metrics.

Backend, APIs & data: Python, FastAPI, Java, Spring Boot, TypeScript/Node.js ecosystem, REST APIs, GraphQL exposure, SQL, PostgreSQL, SQLite, MongoDB, API contracts, idempotency, validation, third-party integrations, and distributed workflows.

AI, ML & agentic systems: LLM integrations, AI agents, conversational workflows, RAG/embeddings exposure, LangChain/LlamaIndex exposure, RLHF, prompt engineering, code-model evaluation, Scikit-learn, PyTorch, TensorFlow/Keras, XGBoost, LightGBM, and model validation.

Mobile & fintech engineering: Swift, SwiftUI, UIKit, Combine, Kotlin, Java, Android, MVVM/MVC, Clean Architecture, XCTest, secure onboarding, identity verification, transaction flows, Backbase APIs/SDK, and legacy/core-banking integrations.

Cloud, DevOps & quality: AWS, AWS Lambda, Docker, Kubernetes, GitHub Actions, Jenkins, Bitrise, CI/CD, automated unit/integration/E2E testing, deployment packaging, observability concepts, troubleshooting, performance, security, and production readiness.

Architecture & collaboration: System design, modular architecture, SOLID, reliability, maintainability, technical documentation, ADR-style decision making, cross-functional leadership, client communication, product/business alignment, and multicultural remote teams.

Professional experience

Senior Software Engineer | Product & AI Systems - Altamira Tech Labs

Mar 2024 - Present | Remote

- Co-founded and help lead an engineering-led software and AI consultancy, owning product definition and technical delivery for intelligent automation, custom software, data systems, and AI-enabled workflows.
- Translate founder and client objectives into product goals, user journeys, prioritized MVP scope, specifications, acceptance criteria, milestones, roadmaps, success metrics, and go/no-go release criteria.
- Build Python/FastAPI backend services and REST APIs using SQL/PostgreSQL persistence, third-party integrations, cloud-ready architectures, request validation, error handling, idempotency, and durable workflow state.
- Designed a multi-branch conversational commerce platform with deterministic routing, durable conversation state, role-scoped operator access, human handoff, payments-readiness states, auditability, and controlled failure/recovery behavior.
- Design LLM-assisted and agentic workflows with structured context, prompt orchestration, human approval gates, evidence capture, evaluation, and deterministic fallbacks so AI output remains operationally controlled.
- Deliver web, mobile, and cross-platform product work across TypeScript/Next.js, iOS, Android, Flutter, React Native, Java/Spring Boot, and API-driven systems when product needs require broader full-stack ownership.
- Partner with engineers and AI coding agents on feasibility, system architecture, API/data contracts, delivery-slice decomposition, verification scripts, automated test strategy, CI/CD quality gates, and production-risk reduction.
- Work across engineering, product, commercial, and client-facing responsibilities, balancing scope, delivery speed, usability, maintainability, support load, security, scalability, and business outcomes.

Technologies: Product strategy, Python, FastAPI, REST APIs, SQL, PostgreSQL, TypeScript, Next.js, Java, Spring Boot, Swift, Kotlin, Flutter, React Native, LLM/agentic workflows, AWS, Docker, Kubernetes, GitHub Actions, CI/CD

AI Trainer | Python, Backend & LLM Evaluation - Revelo

May 2025 - Jun 2026 | Remote

- Evaluated advanced AI-generated coding and language-model outputs across Python, SQL, backend/API tasks, data-processing logic, test behavior, reasoning quality, and production usefulness.
- Translated ambiguous quality requirements into structured evaluation criteria and assessed correctness, instruction adherence, clarity, maintainability, reliability, and end-user usefulness.
- Identified edge cases, failure modes, security/reliability gaps, hallucinations, and recurring model-quality patterns; provided precise written feedback to improve model behavior.
- Assessed API design, validation logic, debugging approaches, expected unit-test behavior, and whether proposed solutions solved the actual user intent rather than merely compiling.
- Worked in high-precision English-language remote workflows requiring consistent technical judgment and disciplined written communication.

Technologies: *Python, SQL, backend/API review, code-model evaluation, LLM evaluation, test analysis, data-processing logic, acceptance criteria, technical writing*

Machine Learning Engineer - Anyone AI

Sep 2024 - Feb 2025 | Remote / Project-Based

- Built end-to-end ML and data projects across credit risk, sentiment analysis, computer vision, and SQL-driven business analytics, from problem framing and data preparation through evaluation, deployment, and outcome analysis.
- Developed a home credit-risk modeling solution over 350,000+ records using data cleaning, exploratory analysis, feature preparation, Decision Tree, XGBoost, and LightGBM, achieving ROC-AUC above 0.72.
- Designed and deployed a CNN-based vehicle make/model image-classification service on AWS using Docker, reaching 82% accuracy and exposing model inference through an API.
- Built sentiment-analysis experiments using text preprocessing, Bag of Words, TF-IDF, and word embeddings to compare approaches and evaluate model behavior.
- Performed SQL-based analysis of a large LATAM e-commerce dataset to surface revenue, delivery-delay, customer, and operational performance patterns.
- Applied reproducibility, data-quality controls, model validation, deployment packaging, API delivery, and decision-oriented communication across projects.

Technologies: *Python, SQL, Pandas, NumPy, Scikit-learn, PyTorch, TensorFlow, Keras, XGBoost, LightGBM, Matplotlib, REST APIs, Docker, AWS*

AI Data Trainer - Scale AI

Feb 2024 - Oct 2024 | Remote

- Supported LLM improvement through RLHF-style human-in-the-loop evaluation and refinement for coding assistance and natural-language tasks.
- Reviewed, validated, and refined AI-generated Python and SQL outputs for correctness, consistency, instruction adherence, reasoning quality, and practical usefulness.
- Authored and improved technical prompts, rubrics, and evaluation criteria for computer-science and code-generation tasks.
- Identified recurring output gaps, edge cases, and failure patterns to strengthen model-quality review and feedback workflows.

Technologies: *Python, SQL, LLMs, RLHF, prompt design, model evaluation, human-in-the-loop workflows*

Software Developer | Enterprise Fintech, Mobile & Backend Integration - Sophos Solutions / Backbase LATAM Banking Engagements

Feb 2021 - Jan 2024 | Colombia / Mexico - Remote

- Delivered production banking software for Banesco República Dominicana, Banco de la Nación del Perú, and Banco Security Chile in security-, reliability-, compliance-, and release-sensitive environments.
- Built and maintained native iOS and Android banking capabilities using Swift, SwiftUI, UIKit, Combine, Kotlin, Java, REST APIs, and Backbase integrations, working across onboarding, identity, accounts, transfers, and transaction flows.
- Contributed to UIKit-to-SwiftUI migration work, reusable components, MVVM/MVC and Clean Architecture practices, defensive coding, performance optimization, memory management, accessibility/localization concerns, XCTest, and release quality.
- Helped design and implement a secure cardless ATM withdrawal journey for Banco de la Nación del Perú, connecting the mobile user flow with Backbase APIs and legacy banking infrastructure.
- Built and integrated API-driven components across modern and legacy banking systems and contributed to backend/platform work with Java/Spring Boot, TypeScript/Angular, Docker, Kubernetes, and CI/CD.
- Implemented and supported asynchronous/reactive mobile flows with Combine, REST/JSON integrations, app lifecycle behavior, and production-sensitive feature delivery.
- Collaborated with backend, QA, product, architecture, and business teams on requirements, solution design, integration troubleshooting, testing, incident analysis, release readiness, post-production support, and production-risk reduction.
- Worked in multicultural Agile teams across Latin America and developed a reputation for ownership, learning complex systems quickly, and independently driving features to completion.

Technologies: *Swift, SwiftUI, UIKit, Combine, Kotlin, Java, Android, Backbase SDK/APIs, REST APIs, Spring Boot, Angular, TypeScript, Docker, Kubernetes, XCTest, GitFlow, GitHub Actions, Jenkins, Bitrise, CI/CD, Agile*

Project & Account Management Assistant - Ikarosoft Technology

Oct 2019 - Nov 2020 | Cali, Colombia

- Supported client-facing software delivery through sprint planning, daily coordination, requirements documentation, backlog/task tracking, stakeholder communication, and operational follow-through.
- Helped align technical teams and business stakeholders around scope, priorities, timelines, deliverables, dependencies, and expectations.
- Assisted with account management, product presentations, customer communication, and delivery documentation, translating client context into concrete work for technical teams.
- Contributed to project transparency and execution discipline in Agile software initiatives.

Technologies: *Scrum, Agile coordination, requirements, backlog/task tracking, stakeholder communication, documentation, account support*

Selected portfolio & engineering highlights

- Conversational commerce & operations platform: Architected a FastAPI/PostgreSQL multi-branch workflow with routing, ownership, role permissions, human escalation, payments readiness, audit trails, idempotent operations, and deterministic recovery.
- AI-native product delivery: Designed product/engineering workflows where specifications, acceptance criteria, automated verification, reviewer roles, quality gates, and human approvals let engineers and coding agents execute with less ambiguity.

- Fintech product delivery: Shipped mobile and API-integrated banking capabilities across three Latin American institutions, including cardless ATM withdrawal and reliability-sensitive transaction journeys.
- Credit-risk decision modeling: Built supervised ML models over 350,000+ records and achieved ROC-AUC above 0.72 using Decision Tree, XGBoost, and LightGBM.
- Cloud-deployed computer vision: Built a CNN vehicle make/model classifier reaching 82% accuracy and packaged it as a Dockerized inference API on AWS.
- Data & product analytics: Used SQL and Python to analyze LATAM e-commerce revenue, delivery delays, and operational behavior, translating technical findings into decision-ready insights.

Education

- Universidad Nacional de Colombia - Specialization in Machine Learning & Data Science, 2021
- Universidad de los Andes - B.Sc. in Biomedical Engineering, 2019

Certifications and additional training

Project management & cloud: Project Management Institute (PMI) - Certified Associate in Project Management (CAPM)[®]; EPAM - DevOps Specialization, 2026; EPAM - Cloud & Automation Platform Engineer Program, 2026; Universidad de Cataluña - Project Management with AI, 2026.

AI & machine learning: Anyone AI - Developing LLM-Based Apps, 2025; Building Next-Gen AI Agents, 2025; Machine Learning Specialization, 2024 - 2025.

Data foundations: Correlation One - Data Science for All, 2020; Acámica - Data Science Associate, 2020; Google - Google Cloud Platform Big Data and Machine Learning Fundamentals, 2020.

Languages

Spanish - Native | English - Advanced C1