

Pedro Arnedo

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Principal Software Engineer & Product-Oriented Lead

Software Engineer with over a decade of experience building and scaling distributed systems, leading cloud-native architecture modernization, and growing high-performing engineering teams. I specialize in Python and C++, with deep expertise in API design, observability, and developer experience. Passionate about designing reliable, scalable systems and mentoring engineers in Agile environments. Proven success delivering impact in fast-paced, cross-functional, and remote teams.

I have dual Spanish-American citizenship, currently based in Spain and open to remote opportunities globally.

Experience

Principal Software Engineer

May 2022 – Present

Python, asyncio, Redis, SQL

Scuba Analytics - Boston, MA (Remote)

Recognized as the technical leader during a period of rapid system and team growth, driving engineering initiatives with a strong focus on end-user experience. Owned new features end-to-end, from product discovery to deployment, through close cross-functional collaboration. Led and mentored 5 mid and senior-level engineers through a Python guild, modernizing Scuba's engineering practices and improving product reliability.

- Owned requirements gathering, design, implementation, deployment and post-deployment for both new customer features, core improvements and python and MySQL version migrations.
- Implemented an alerting and monitoring system able to send insights to diverse platforms like Slack or MS Teams. The system included several API endpoints, a MySQL DDL, a guaranteed delivery subsystem and customer documentation.
- Improved performance of the REST APIs by implementing a custom caching mechanism using Redis and in-memory caching going, in some cases, from 10s to 50ms.
- Authored RFCs and collaborated with other principal and senior engineers to drive alignment on platform architecture and cross-team initiatives.

Senior Software Engineer

July 2020 – April 2022

Python, MySQL, BigQuery, SQLAlchemy, pytest

Scuba Analytics - Boston, MA (Remote)

Joined as the first engineering hire during a critical scaling phase, establishing foundational practices and code patterns to accelerate growth. Reverse-engineered and documented legacy systems, improving scalability and enabling faster onboarding for new hires. Played a key role in technical hiring, helping build a high-performing, customer-focused engineering team.

- Led API redesign, going from a monolithic API to a more granular REST API design, improving maintainability and monitoring.
- Built a decorator-based observability framework using RAII-inspired patterns to automatically capture execution metrics — elapsed time, queuing delays, and database access times — at the end of each request lifecycle, enabling rapid detection and optimization of underperforming services.
- Reverse-engineered legacy systems generating docs, slides and recorded presentations to the team, going from the import sub-system to the api layer to the schedule task subsystem.
- Integrated BigQuery for data ingestion in the current ingestion subsystem, broadening the analytics platform's reach. Enabled Scuba to ingest both intraday and daily data from tables such as those generated by GA4.

Senior Solution Architect

February 2018 – July 2020

Python, Flask, AWS (Lambda, ECS, API Gateway), Snowflake, Terraform, Docker

Localytics - Boston, MA

- Designed and built a scalable cloud-native ETL pipeline processing 100,000 files/day, dynamically routing small files to AWS Lambda and large files to AWS Fargate, optimizing both performance and cost.
- Built enterprise integration between Jira and Salesforce, significantly reducing manual work.
- Led product development of basket analysis system using the Apriori algorithm, boosting recommendation accuracy and helping sales open more leads.

Senior Software Developer

C++14/17, STL, Boost, Python, Oracle, ELK Stack, d3.js, Linux

August 2014 – January 2018

Amadeus North America - Boston, MA

- Mentored over 20 junior engineers and conducted senior technical interviews.
- Main developer of the Rate Management System for IHG, processing millions of daily rate calculations.
- Implemented a production monitoring platform with ELK stack using data from a custom C++ logger class that computed function execution times using RAIL, widely adopted across departments for performance monitoring.
- Developed an internal database visualization tool using JavaScript, Python and d3.js that reduced debugging time considerably.

Side Projects

Full stack engineer

Virikes

April 2025 – Present

Spain

- Delivered a website for a dental clinic in Next.js and deployed it on Vercel. (abaddental.com)
- Learned Next.js by creating a website for job tracking management that uses a FastAPI Python backend and deployed it on Vercel. (jobsherpa.com)
- **Tech Stack:** Next.js, React.js, SQL, FastAPI, Tailwind, Vercel

Founder and Lead Developer

Scan And App

October 2012 – November 2016

Nice, France

- Designed, developed, and launched a full-stack system allowing users to generate QR codes linked to alerts, chats, or website redirects.
- Built and maintained the entire platform, including the Android application, backend services, and database infrastructure.
- Developed the backend in Python using Django and Django REST Framework, deployed on AWS for scalability and reliability.
- Created the Android mobile application to interface seamlessly with the Python backend.
- **Tech Stack:** Python, Django, Django REST Framework, MySQL, Android, AWS.

Skills

Languages: Python (asyncio), C++14/17, React.js

Cloud & DevOps: AWS (Lambda, ECS, API Gateway), Docker, Terraform

Data & Storage: PostgreSQL, BigQuery, Snowflake, Redis, MySQL, Oracle

Frameworks: Flask, Tornado, Django, FastAPI, Next.js, SQLAlchemy

Tools: Jenkins, Git, ELK, Jira, pytest, vim

Practices: Agile (Certified Scrum Master), CI/CD, TDD, System Observability

Education

ENSIMAG

Master's Degree in Security, Cryptology and Coding of Information Systems

Grenoble, France

2009–2010

ENSIMAG

Double Degree, Information Systems Engineering

Grenoble, France

2008–2010

Universidad Politécnica de Madrid

Computer Engineering

Madrid, Spain

2001–2008

Certifications & Training

2017: Management Development for New Managers - Amadeus

2015: MongoDB University Certification

2014: Certified Scrum Master (CSM)

2013: Oracle Performance Optimization

Languages

Spanish: Native

French: Bilingual

English: Fluent