

# Pedro Arnedo

## Principal Software Engineer

### Summary

Software Engineer with over 12 years of experience building and scaling distributed systems, leading cloud-native architecture modernization, and growing high-performing engineering teams. I specialize in Python (asyncio) and C++, with deep expertise in microservices, 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 international opportunities.

### Experience

May 2022 – **Principal Software Engineer**, *Scuba Analytics*, Boston, MA (Remote)

- Present
- 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.
  - Authored technical documentation and architecture reviews. Led a Python guild, and coordinated several functional discoveries for new features, going from product discovery to deployment in production.
  - Improved performance of the REST APIs by implementing a custom caching mechanism using Redis and in-memory caching. Improved by several orders of magnitude the performance and response time of the APIs.
  - **Tech Stack:** Python 3.9+, Redis, Python asyncio, SQL

July 2020 – **Senior Software Engineer**, *Scuba Analytics*, Boston, MA (Remote)

- April 2022
- Pioneered engineering efforts as the first hire, reverse-engineering and documenting legacy systems to enable scale.
  - Led technical hiring and guided a team of 18 engineers, maintaining strong engineering culture and high standards.
  - Led API redesign, going from a monolithic API to a more granular REST API design, improving maintainability and monitoring.
  - 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.
  - **Tech Stack:** Python 3.9+, MySQL, BigQuery

February **Senior Solution Architect**, *Localytics*, Boston, MA

- 2018 – July 2020
- Designed and built a scalable cloud-native ETL pipeline handling 100K+ files/day (AWS Lambda, Fargate).
  - Built enterprise integration between Jira and Salesforce, reducing manual work nearly completely.
  - Led product development of basket analysis system using algorithms like Apriory, boosting recommendation accuracy and helping sales open more leads.
  - **Tech Stack:** Python, Flask, AWS (Lambda, ECS, API Gateway), Snowflake, Terraform, Docker

- August 2014 **Senior Software Developer, Amadeus North America, Boston, MA**
- January 2018
    - 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 RAII that ended up being widely used across multiple departments for performance monitoring.
    - Developed an internal DB visualization tool using JavaScript, Python and d3.js that reduced debugging time considerably.
    - **Tech Stack:** C++14/17, STL, Boost, Python, Oracle, ELK Stack, d3.js, Linux
- September 2010 – July 2014 **Software Developer, Amadeus S.A.S, Nice, France**
- Led Unified Search consolidation project, improving response times by 40%.
  - Conducted a refactor of 30+ services to implement API versioning.
  - Conducted security audits and performance optimization for key middleware.
  - **Tech Stack:** C++11, Oracle, Python, Shell scripting, Linux, Git

## Side Projects

- April 2025 – Present **Web developer, Virikes, Spain**
- Delivered a website for a dental clinic in Next.js and deployed it on Vercel. (<https://abaddental.vercel.app>)
  - Learned Next.js by creating a website for job tracking management that uses a FastAPI python backend and is deployed it in Vercel. (<https://jobsherpa.vercel.app>)
  - **Tech Stack:** Next.js, React.js, SQL, FastAPI, Vercel
- October 2012 – November 2016 **Founder, Scan And App, Nice, France**
- Android app and backend system that allowed users to generate QR codes and configure them as alerts, chats, or redirects for a website.
  - Responsible for all development (Android application, backend services, and database management).
  - **Tech Stack:** Python, Django, Django REST Framework, MySQL, Android.

## Skills

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|--------------------|---|
| Languages          | Python (asyncio), C++14/17, JavaScript (React.js), Next.js  |
| Cloud & DevOps     | AWS (Lambda, ECS, API Gateway), Docker, Kubernetes, Terraform   |
| Data & Storage     | PostgreSQL, BigQuery, Snowflake, Redis, MySQL, Oracle   |
| Frameworks & Tools | Flask, Tornado, Bootstrap, D3.js, Jenkins, Git, ELK, Jira   |
| Practices          | Agile (Certified Scrum Master), CI/CD (Continuous Integration / Continuous Delivery), TDD (Test-Driven Development), System Observability |

## Education

- 2009–2010 **Master's Degree in Security, Cryptology and Coding of Information Systems, ENSIMAG, Grenoble, France**
- 2008–2010 **Double Degree, Information Systems Engineering, ENSIMAG, Grenoble, France**
- 2001–2008 **Computer Engineering, Universidad Politécnica de Madrid, Madrid, Spain**

## Certifications & Training

- 2017 Management Development for New Managers - Amadeus
- 2015 MongoDB University Certification
- 2014 Certified Scrum Master (CSM)
- 2013 Oracle Performance Optimization

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## Languages

Spanish	Native
French	Bilingual
English	Fluent

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## Keywords

Keywords	Python, C++, Docker, AWS Lambda, Terraform, Microservices, Event-Driven Architecture, PostgreSQL, Redis, MySQL, Snowflake, Git, CI/CD, TDD, Agile, Distributed Systems, Vue.js, Flask, System Observability, Kubernetes, BigQuery, API Gateway, D3.js, Jenkins, Jira, ELK Stack
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