Pedro Arnedo
Principal Software Engineer
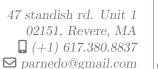
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Summary

Seasoned Software Engineer with 12+ years of experience building high-performance distributed systems and scalable backend architectures. Expert in Python ecosystem with deep experience in asyncio, concurrent programming, and system optimization. Proven track record in building engineering teams from ground up, leading technical initiatives, and transforming legacy systems into modern architectures. Known for combining technical excellence with strategic thinking to deliver robust solutions that drive business growth.

Professional Experience

2020– Present — **Principal Software Engineer**, *Scuba Analytics*, Boston, MA
- Pioneered engineering efforts as the first engineer, successfully reverse-engineering and documenting existing codebase to enable team scaling
- Led technical hiring initiatives, growing engineering team from 1 to 18 members while maintaining high technical standards and team culture
- Architected and implemented comprehensive alerting system, enabling proactive monitoring of customer-defined metrics
- Spearheaded complete API redesign, improving system maintainability and reducing client integration time by 40%
- Enhanced data ingestion system by implementing BigQuery integration, expanding platform capabilities and increasing data source options for customers
- Created extensive technical documentation, facilitating knowledge transfer and reducing onboarding time for new team members

Technology Stack: Python 3.9+, asyncio, MySQL, BigQuery, Redis

2018–2020 — **Senior Solution Architect**, *Localytics*, Boston, MA
- Architected and implemented cloud-native data processing pipeline handling 100K+ daily file uploads using AWS Lambda, ECS Fargate, and Snowflake
- Led development of basket analysis system using a-priori algorithm, increasing customer recommendations accuracy by 35%
- Designed and built enterprise integration system synchronizing data between Jira and Salesforce, reducing manual work by 80%
- Implemented throttling system for API calls, reducing infrastructure costs by 40% while maintaining SLAs

Technology Stack: Python, Flask, Vue.js, AWS (Lambda, ECS Fargate, API Gateway), Snowflake, Terraform, Docker

2015–2018 — **Senior Software Developer**, *Amadeus North America*, Boston, MA
- Led development of Rate Management System for IHG, handling millions of daily rate calculations
- Created performance monitoring system using ELK stack, improving system reliability by 25%
- Mentored 20+ junior developers and conducted technical interviews for senior positions
- Developed database visualization tool reducing debugging time by 50%

Technology Stack: C++14/17, STL, Boost, Python, Oracle, ELK Stack, Jenkins, Linux

2010–2015 — **Software Developer**, *Amadeus S.A.S*, Nice, France
- Spearheaded Unified Search consolidation project, improving response times by 40%
- Implemented versioning system supporting 30+ service combinations
- Led security audit and optimization of core middleware components

Technology Stack: C++11, Oracle, Python, Shell scripting, Linux, Git

Technical Skills

Languages	Python (asyncio), C++14/17 (STL, Boost), JavaScript
Cloud & DevOps	AWS (Lambda, ECS, API Gateway), Terraform, Docker, Kubernetes
Databases	PostgreSQL, Snowflake, Oracle, MySQL, BigQuery, Redis
Frameworks	Tornado, Flask, Vue.js, Bootstrap, D3.js
Methodologies	Scrum (Certified), Kanban, Agile Development

Education

2009–2010	**Master 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

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

Languages

Spanish	Native
French	Bilingual
English	Fluent