

# Roberto Barreda

Senior Software Engineer | Cloud Development | Problem-Solver

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## Summary

15+ years building cloud-native distributed systems and leading technical teams. Led teams of 3-8 engineers delivering innovative solutions for millions of users with 99.95%+ uptime. Specialized in zero-trust security architectures, observability platforms, and edge AI deployment.

## Core Competencies

- Technical Leadership** — Leading engineering teams and driving technical excellence
- Product Mindset** — Understanding how work fits into overall product strategy
- Cloud Architecture** — AWS, GCP, Azure with Kubernetes orchestration
- System Reliability** — Building highly available systems with comprehensive observability
- Cross-functional Collaboration** — Working effectively across teams and disciplines
- Team Mentorship** — Growing and developing engineering talent

## Work Experience

### Senior Software Engineer - Technical Lead — Midokura (Sony Group)

January 2024 – Present • Remote

Leading a team of 6 engineers building services for the AITRIOS platform, enabling seamless deployment of third-party AI models and WASM applications to edge devices at scale.

#### Key Achievements:

- Architected integration pipeline handling 50+ AI model deployments, reducing onboarding time from weeks to days and increasing platform adoption by 40%
- Designed and implemented WASM runtime orchestration on Kubernetes, supporting 10K+ edge devices with 99.9% deployment success rate
- Established CI/CD pipelines with automated testing, improving deployment frequency by 3x while reducing production incidents by 60%
- Led technical design reviews and mentored 4 junior engineers on cloud-native architecture patterns and edge computing best practices

**Technologies:** Java, Python, Kubernetes, Azure, Terraform, SQL, Prometheus, GitOps, Edge AI

## **Staff Software Engineer** — [Netskope](#)

*October 2021 – January 2024 • Remote*

Core contributor to Remote Browser Isolation (RBI) platform serving 5M+ users, delivering zero-trust security architecture and high-availability microservices infrastructure.

### **Key Achievements:**

- Architected orchestration and configuration engine managing 1000+ browser instances, processing 50K+ requests/hour with sub-100ms latency
- Improved system reliability from 99.5% to 99.95% uptime by implementing circuit breakers, automated failover, and chaos engineering practices
- Built comprehensive observability platform using Prometheus, Grafana, and distributed tracing, reducing MTTR by 70% and enabling proactive incident prevention
- Established GitOps workflows and IaC with Terraform/Helm, achieving 50+ deployments/week with zero-downtime releases
- Mentored 5 engineers on microservices patterns, Kubernetes best practices, and security-first design principles

**Technologies:** Golang, Python, Kubernetes, Google Cloud (GCS), Prometheus

## **Cloud Engineer** — [Platform.sh](#)

*January 2021 – October 2021 • Remote*

Contributed to core platform infrastructure supporting 10K+ applications, focusing on observability, performance optimization, and Python3 migration.

### **Key Achievements:**

- Designed and implemented observability features using Prometheus and custom metrics exporters, improving platform visibility and reducing debug time by 50%
- Led Python2 to Python3 migration for 15+ critical services and libraries, ensuring compatibility while improving performance by 25%
- Standardized coding conventions and established linting/testing frameworks across 20+ repositories, reducing code review time by 40%
- Collaborated with Ops and Support teams to reduce P1 incident resolution time by 35% through improved monitoring and runbooks

**Technologies:** Python, Golang, SQL, LXC

## **Lead Software Engineer** — Clevernet

*2015 – 2021 • Barcelona, Spain*

First senior engineer hire, responsible for establishing engineering practices, platform architecture, and technical leadership for early-stage networking startup.

### **Key Achievements:**

- Architected and built complete SD-WAN platform from ground up, supporting 500+ enterprise deployments across 20+ countries
- Designed and implemented IPsec/MQTT-based distributed control plane, achieving 99.9% uptime and sub-50ms failover between WAN connections
- Established DevOps practices including CI/CD pipelines, IaC with Ansible, and monitoring systems, reducing deployment time from days to hours
- Grew and mentored engineering team from 2 to 8 engineers, establishing code review processes, testing standards, and architecture documentation
- Led technology evaluation and selection for core platform components, optimizing for scalability, security, and operational efficiency

**Technologies:** Python, Ansible, MQTT, IPsec, PostgreSQL, Linux networking, SD-WAN, AWS

## **Software Engineer** — Careesma

*December 2012 – January 2015 • Barcelona, Spain*

Contributed to job board platform with 6+ million unique visitors and 1+ million emails sent per month across multiple markets (India, Austria, Poland).

### **Key Achievements:**

- Ported legacy PHP/C++ application to modern Python architecture
- Simplified onboarding process for new jobseekers
- Improved application performance and reliability

**Technologies:** Python, Solr, MySQL

## **Software Engineer** — Qustodio

*January 2011 – November 2012 • Barcelona, Spain*

Member of the initial engineering team, involved in every aspect of development for parental control and internet monitoring software.

### **Key Responsibilities:**

- Data gathering and processing (ETL) systems
- REST API supporting parents' dashboard and desktop application
- Alert and notification system implementation

**Technologies:** Python, PHP, Hadoop, MySQL, AWS

## **Software Engineer** — Evolium

*November 2008 – November 2012 • Barcelona, Spain*

Designed and developed security solutions for a well-known antivirus company.

### **Key Projects:**

- Client-side library for communication with cloud protection and security services
- Phishing/Malware protection cloud service using heuristics for threat detection
- Web application for remote administration of antivirus installations

**Technologies:** C++, C#, MySQL

## **Research Assistant** — Universitat Politècnica de Catalunya

*January 2007 – November 2008 • Barcelona, Spain*

Research in Broadband Communications Research Group (CBA), focusing on broadband networks and services.

### **Key Projects:**

- Developed tools to measure network QoS: NetMeter, OreNETa
- Contributed to EU project EuQoS

**Technologies:** C++, Qt, XML/XSLT, QoS

## **Education**

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### **MSc in Computer Science**

Universitat Politècnica de Catalunya • 2003 – 2008

*Telematic Networks and Operating Systems*

### **Languages**

- **English** — Professional
- **Spanish** — Native
- **Catalan** — Native
- **Italian** — Basic