

# Ricardo Kirkner

Staff Engineer | Backend Systems & Infrastructure Expert

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## Professional Summary

Principal-level engineer with 20+ years of experience architecting and building infrastructure platforms from the ground up. Specializes in greenfield system design, creating compelling proof-of-concepts, and leading technical implementation of complex distributed systems. Deep expertise in [observability platforms](#), multi-cloud infrastructure, and modern backend architectures. Thrives on solving novel technical challenges and building systems that inspire awe.

**Core Expertise:** Greenfield System Architecture • Infrastructure Platform Design • Observability & Monitoring Systems • [OpenTelemetry & Standards](#) • Technical Leadership

## Technical Skills

### Core Languages & Frameworks

Go • Python • Django • Flask • Pyramid • REST API Design

### Monitoring & Observability

OpenTelemetry • Custom metrics platforms • Grafana • Sentry • Nagios • Graphite

### Cloud & Infrastructure

Google Cloud Platform • AWS • Azure • Docker • LXC • cgroups • Kubernetes

### Data & Databases

BigQuery • ClickHouse • PostgreSQL • MySQL • PubSub • ETL Pipelines • Data Processing Systems

### DevOps & Automation

GitLab CI/CD • Jenkins • Puppet • Ansible • Git

### Operating Systems & Web Technologies

Linux (Debian, Fedora) • HTML • CSS • Jinja2 • Mako

## Professional Experience

### Platform.sh

2020–Present

Staff Engineer

Previously: Technical Lead (2019–2020), Cloud Engineer (2018–2019)

#### Platform Architecture & Implementation

- **Architected and built observability infrastructure from ground up** using Go, designing comprehensive metrics collection, storage, and API systems for global platform serving [10,000+ projects](#)
- **OpenTelemetry Pioneer:** Early advocate and implementer of OpenTelemetry standards, driving adoption when recognizing limitations of existing proprietary solutions
- **Designed critical platform components** including edge proxy routing layer (HTTP/TCP/TLS) and orchestration control plane for multi-cloud infrastructure
- **Reduced observability COGS by 50-60%** through innovative architectural decisions and efficient system design
- **Led multi-region feature rollouts** across AWS, GCP, and Azure for [10,000+ projects](#), architecting deployment strategies and ensuring system reliability

#### Infrastructure Innovation & Security

- **Designed and implemented SSH certificate authentication** and automated TLS certificate renewal systems
- **Architected logs forwarding infrastructure** and comprehensive observability feature set
- **Contributed to discovery of CVE-2024-45337** in golang x/crypto/ssh library, demonstrating deep system-level security expertise

## Technical Leadership & Collaboration

- Mentor multiple engineers and created internal training materials on observability best practices and OpenTelemetry implementation
- Drive technical consistency and architectural standards across teams, with focus on modern observability practices
- Champion adoption of industry-standard monitoring approaches over proprietary solutions

## Canonical

2010–2018

Software Engineer, Team Manager, Technical Lead

### Ubuntu Platform Architecture

- **Architected Ubuntu SSO infrastructure** serving millions of users, designing scalable authentication systems
- **Built Ubuntu Pay payment processing** including in-app purchases for Snap packages, handling complex financial transactions
- **Led Software Center integration** with Snap package ecosystem, bridging traditional and modern package management
- Developed scalable authentication and payment processing systems using Python for Ubuntu ecosystem

## Globant

2009–2010

Technical Lead

### Massive-Scale Data Infrastructure

- **Architected data collection system** for Active Broadband Networks handling 17 million cable modem devices on Comcast network
- **Designed high-performance ETL pipelines** for processing massive data volumes while meeting strict performance and hardware constraints
- Led development team building custom solutions for large-scale analytics and delayed consumption processing

## Early Career Highlights

2001–2009

### Universidad de Buenos Aires

2001–2005

Network & System Administrator

- Managed faculty-wide network and system infrastructure serving needs for departments including Computer Science, Physics, and Mathematics

### Various Roles

2005–2008

Software Engineer

- Developed Plone-based multi-lingual portal for Basque community worldwide
- Designed and lead development of Buenos Aires City Driver License Exam system serving 1500 applicants daily

## Key Achievements

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- **Architect of enterprise-scale platforms** - Built observability, authentication, and data processing systems from ground up
  - **OpenTelemetry pioneer** - Early advocate driving industry standards adoption in observability
  - **Multi-cloud infrastructure expertise** - Designed systems spanning AWS, GCP, and Azure at global scale
  - **Security contributor** - Contributed to discovery of CVE-2024-45337 in widely-used golang library
  - **Proven scale** - Systems serving 10,000+ projects and 17M+ devices across multiple platforms
  - **24 years of progressive technical leadership** - From system administrator to Principal-level architect
  - **Active open source contributor** - Early member of Python Argentina, conference speaker

## Education

### Universidad de Buenos Aires

1998–2007

Licenciado en Ciencias de la Computación

**Thesis:** Reinforcement Learning on Self-reconfigurable Modular Robots

## Leadership & Community

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### Python Argentina User Group

2005–Present

*Early Member & Active Contributor*

- Co-organized PyCon Argentina and PyCamp events
- **Speaker:** PyCon Argentina (2009, 2011, 2015, 2019), PyCon US (2012)
- Active contributor to Python community growth in Latin America

**Languages:** Spanish (Native), English (Fluent), German (Fluent)