Fernando Ibanez

Technical Lead | Senior Cloud & Software Engineer | AWS Certified

Contact

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Citizenship: Spanish and British

Residency: Australian Permanent Resident

Summary

Senior Software Engineer and Technical Lead with 10+ years building scalable cloud systems on AWS. Experienced leading teams, designing distributed architectures, and delivering secure, high-performance applications for enterprise and government clients.

Hands-on expertise in **AWS architecture, Java, Scala, and distributed microservices**, with proven experience leading cross-functional teams, mentoring engineers, and driving architectural decisions that improve reliability, scalability, and developer efficiency.

AWS-certified across multiple disciplines, combining technical depth and leadership to deliver global-scale, customer-impactful platforms.

Certifications

- AWS Certified Solutions Architect – Associate
- AWS Certified SysOps Administrator – Associate
- AWS Certified Data Engineer – Associate
- AWS Certified Developer – Associate
- AWS Partner: Generative AI Essentials (Business)
- Google Cloud: Prompt Design in Vertex AI

Core Competencies

Languages: Java (17/11/8), Scala, Python, TypeScript, JavaScript, Bash
Cloud: AWS
DevOps & Tools: Docker, Kubernetes, Kafka, Jenkins, Bamboo, ArgoCD, Grafana, Kibana, GitHub Actions,
Messaging & Streaming: Kafka, SQS, SNS
Frameworks & APIs: Spring Boot, Vert.x, REST, gRPC, OpenAPI/Swagger
Practices: Agile, TDD, BDD, CI/CD, Observability, Cloud Security

Education

- MSc. In Artificial Intelligence, 2014, *UPM, Madrid, Spain*
- Bachelor's Degree in Computer Science, 2011 *UPM, Madrid, Spain*

Professional Experience

CGI/BJSS Australia | Melbourne, Australia (Apr 2022 – Present)
One of the world's largest IT and business consulting services companies

Technical Lead | Senior Software & Platform Engineer | Cloud & DevOps

Queensland Digital Licence Application (DLA) – Department of Transport and Main Roads

Delivering cloud-native and backend engineering solutions for government digital transformation projects, focusing on serverless architecture, scalability, performance, and security in public cloud environments.

Key Achievements

- Implemented a **serverless architecture** on AWS (Lambda, API Gateway, S3, CloudFront), reducing infrastructure complexity and operational overhead.
- Integrated third-party liveness detection and facial recognition services to enable secure biometric verification.
- Automated infrastructure using **GitHub Actions** and **CloudFormation**.

Technical Environment

- AWS (Lambda, API Gateway, S3, CloudFront, Route 53, Secrets Manager, VPC, ACM, WAF, CloudFormation), TypeScript, Mulesoft, Auth0, GitHub Actions.

Macquarie Bank - Rates Management Systems – Financial Services

Conducted software engineering and support in AWS public cloud for a new system component, including frontend and backend applications, within Rates Management System to enhance the management and maintenance for all EOD Official Rates. The system provides a seamless way of managing the ownership of the rate paths and provide metadata about the rate paths.

Key Achievements

- Designed and implemented enhancements to a **three-tier distributed system** supporting the management of EOD official rates worldwide.
- Architected and implemented **REST and gRPC interfaces**, improving interoperability and performance across downstream systems.
- Designed and implemented **multi-stage CI/CD pipelines** in Bamboo and **EKS-based microservice deployments** with ArgoCD, enabling automated, GitOps-driven delivery across multiple environments.
- Delivered an ETL backfilling historical rate tool in Python.
- Collaborated with stakeholders in the US and Australia, and with application teams in India and Australia to deliver high-quality solutions.

Technical Environment

- AWS (EKS, RDS), Scala, Docker, ArgoCD, CI/CD (Bamboo), REST, gRPC.

Macquarie Bank - Payment Exception Management Platform – Financial Services

Modernized high-value CGM applications focusing on **Extreme Inherit Risk (EIR)** applications by migrating critical workloads from Data Centers to AWS public cloud, achieving improved reliability and compliance for extreme-risk workloads.

Key Achievements

- Successfully delivered a **lift-shift-uplift migration** of Oracle databases, JBoss-based applications, ElasticSearch cluster, Memcached clusters and Windows services to AWS, improving scalability, availability (Multi-AZ) and operational reliability.
- Collaborated across global teams (Sydney, Singapore, South Africa, India) and received formal recognition from Macquarie for engineering excellence.
- Mentored engineers and reviewed PRs to enforce high standards of delivery and best practices.

Technical Environment

- AWS (ALB, EC2, RDS, EFS, S3, CloudFormation), CI/CD (Arturo/Max), Grafana, Splunk, JBoss, ElasticSearch.

BJSS UK | London, United Kingdom (Jan 2018 - Apr 2022)
An award-winning technology and engineering consultancy for business

Technical Lead | Senior Software Engineer | Consultant

Home Office - Event Streaming Platform – UK Government

Led and delivered large-scale backend and cloud solutions for government and financial clients across the UK, focusing on distributed systems, microservices, and event-driven architectures on AWS and Kubernetes.

Key Achievements

- **Technical Lead** for a mission-critical data streaming platform decoupling incoming events from immigration and citizenship systems to downstream analytics and storage services.
- Architected and maintained an event-driven platform processing **thousands of business events per second**, ensuring reliability and fault tolerance.
- Led a cross-functional team to deliver high-quality components, improve DLQ management, and define platform governance standards.
- Implemented CI/CD automation and observability pipelines with **Jenkins, Docker, Helm, and ELK Stack**, reducing deployment friction and incident resolution times.
- Championed code review culture and mentored junior engineers across teams.

Technical Environment

- AWS (S3, ECS, Lambda), Java, Spring Boot, Vert.x, Kafka, Kubernetes, Docker, Helm, Jenkins, ELK Stack, React, Python, Vagrant.

Lloyds Bank - Financial Services

Delivered automation and migration tools to streamline code generation and API validation, enhancing developer productivity and compliance.

Public Sector Project

Supported multiple short-term engagements in finance, transport, and healthcare, improving backend reliability and test coverage.

Earlier Experience

Senior Software Developer – Mobbill UK LTD | London, UK (Apr 2016 – Jan 2018)
A global carrier billing aggregator primarily specialising in emerging market

Worked as part of a team to develop a single API solution that integrated mobile payment technologies across multiple countries and operators, simplifying digital content payments for consumers.

Engineered scalable, high-availability solutions for global operations, successfully integrating with telecom carriers in India, the Philippines, Australia, and the UK.

Software Developer – PEX Software | London, UK (Aug 2013 – Apr 2016)
RealPage UK now, Focused on property management and resident solutions within the Private Rented Sector (PRS) and Student Accommodation.

Worked collaboratively to maintain and implement new features in a Student Accommodation Property Management System, improving usability and functionality for end users.

Contributed to both backend and frontend development, including real-time email processing and seamless payment integration such as Sagepay, Worldpay, PayPoint, SecurePay, 3D-Secure & Paypal.

Responsible for building a room reservation machine for YOTEL in multiple European airports.

Awards & Recognition

Received **Recognition Award** from the *Macquarie Bank Application Team (2024)* for outstanding contributions to cloud migration and backend engineering excellence within the Payments Exception Management Platform initiative and awarded by BJSS.