

Emmanuel Sandoval

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Education

National Technological Institute of Mexico (TCH)

Computer Engineering Graduated 2017

México, CDMX

Graduation Date

Professional License: 11126548

Relevant Coursework: Software Architecture Fundamentals, Advanced Database Systems, Distributed Computing, Object-Oriented Programming.

Awards: Dean's List for Academic Excellence (2016-2017), Outstanding Thesis Award in Software Engineering

Experience

Citibank MX

Digital S/W Eng Sr
Analyst

Mexico, CDMX (Or hybrid)

11/2024 – 09/2025

- Led migration of Banamex legacy applications to Citibank platform, coordinating integration efforts across 3 critical banking systems.
- Modernized technological infrastructure by migrating Java 1.8 applications to Java 17, improving performance by 35% and ensuring long-term maintainability.
- Implemented hybrid architecture solutions during technological transition, maintaining 99.9% system uptime and zero critical incidents.
- Resolved 50+ critical security vulnerabilities through CAMP platform, achieving full compliance with OWASP security standards.
- Mentored team of 4 junior developers in Java Spring Boot best practices, resulting in 40% reduction in code review iterations.
- Designed and implemented cloud architecture on AWS, utilizing services such as EC2, ECS, Lambda, and RDS to modernize monolithic applications into microservices, reducing infrastructure costs by 30%.
- Established CI/CD pipelines with AWS CodePipeline and CodeBuild, automating deployments across multiple environments and reducing deployment time from 2 hours to 15 minutes.
- Implemented high availability strategies with AWS Auto Scaling, Application Load Balancer, and Multi-AZ deployments, ensuring 99.95% system availability.

Banamex

Digital S/W Eng Sr Analyst

México, CDMX(Or Hybrid)

07/2024 – 11/ 2024

- Directed technical migration of 15+ Banamex applications to Citibank platform, managing cross-functional teams of 5-8 developers
- Architected microservices migration strategy that ensured operational continuity and accelerated delivery speed by 30%
- Designed and implemented IBM MQ integration middleware, enabling seamless communication between legacy and modern banking systems
- Configured API Gateway and data transformation middleware for service homologation, processing 10,000+ daily transactions
- Established CI/CD pipelines using Jenkins and GitHub Actions, reducing deployment time from 2 hours to 15 minutes
- Optimized MongoDB integrations that improved query performance by 50% and reduced database response latency
- Designed serverless architecture with AWS Lambda and Step Functions for transaction processing, reducing operational costs by 45% compared to traditional infrastructure.
- Implemented data lakes on AWS S3 with AWS Glue and Athena for transactional data analysis, enabling real-time queries over more than 5TB of historical data.

HSBC
Senior Project Engineer

México, CDMX(Or Hybrid)
01/2021 – 03/ 2024

- Managed version control workflows with GIT for distributed teams of 12+ developers, ensuring seamless collaboration and zero merge conflicts
- Developed 20+ interfaces and APIs using MuleSoft integration platform, optimizing data flow between core banking systems
- Automated operational tasks with Unix and Shell scripts, reducing manual processing time by 60% and eliminating human error
- Designed RESTful APIs using Flask framework, implementing comprehensive CRUD endpoints for customer management systems
- Created technical documentation with Swagger specifications, facilitating integration adoption by 8 development teams
- Architected microservices solutions using Flask, Docker, and Kubernetes, improving system scalability to handle 3x traffic increase
- Diagnosed and resolved critical performance bottlenecks, improving API response times by 45% and enhancing user experience.

BBVA MX
Software Engineer

México, CDMX(On-site work)
01/2018 – 01/ 2021

- Drafted detailed software requirements for 10+ projects, achieving 20% reduction in development cycle time through clear specifications.
- Supervised agile project management processes for team of 6 developers, improving project success rate by 30%
- Prepared comprehensive technical designs including flow diagrams and sequence diagrams, reducing implementation errors by 15%
- Validated technical feasibility of proposed solutions, mitigating project risks by 25% through early identification of constraints.
- Implemented quality assurance processes with code reviews and pair programming, reducing production defects by 40%.
- Developed robust backend applications using Java and Spring Boot framework, serving 50,000+ active users
- Engineered CIE payment functionality (Electronic Identification Code) including loans module, improving customer satisfaction scores by 25%.
- Built investment module dashboard for NetCash platform with real-time metrics, enabling clients to track portfolio performance.

Leadership & Activities

Open Source Contributor Active Contributor

México, CDMX(Or Remote)
02/2020 – Present

- Contribute to Spring Boot and Java community projects, with 15+ accepted pull requests
- Participate in code reviews and technical discussions, mentoring new contributors

Java User Group Active Contributor

México, CDMX(Or Remote)
01/2019 – Present

- Organize quarterly technical workshops and presentations for 10+ local developers
- Facilitate knowledge sharing sessions on microservices architecture and cloud technologies

Certifications & Professional Development

Recent Certifications (2024)

- Introduction to MongoDB – Coursera
- Containerization Using Docker – Coursera
- JavaScript/Java Basic Certificates – HackerRank

Advanced Training (2022-2023)

- Microservices with Spring Boot and Spring Cloud Netflix Eureka – Udemy
- Kong Gateway Foundations – Kong Inc.
- Scrum Developer Certification

Foundational Courses (2020-2021)

- Hibernate and Java Spring Course – Platzi
- Professional Git and GitHub Course – Platzi
- Software Architecture Fundamentals Course – Platzi

Skills & Interests [Note: Optional]

Technical: Java (8, 11, 17), Spring Boot (2.7, 3.0), Spring MVC, Hibernate, Microservices (Spring Cloud, Quarkus), Event-driven Architecture (Kafka, Axon Server), Docker, Kubernetes, OpenShift, AWS (S2, S3), Jenkins, GitHub Actions, Harness, PostgreSQL, MySQL, MongoDB, Informix, SonarQube, Checkmarx, Snyk, JUnit, Mockito, Swagger, RAML, Postman, MuleSoft

Language: English (Intermediate B1 – Professional competency in reading and writing), Spanish (Native)

Methodologies: Scrum, Kanban, Extreme Programming (XP), CI/CD, DevOps, Test-Driven Development (TDD)

Interests: Distributed systems architecture, Cloud-native technologies, Contributing to open-source projects, Marathon running, Strategic board games