Carlos G. Durazo Herrera

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Summary

Senior Engineering Lead with 10+ years designing scalable systems and leading complex cloud migrations in enterprise environments. Expertise in Java, Spring Boot, AEMaaCS, and AWS, with hands-on experience in event-driven architecture, microservices, and CI/CD pipelines. Recognized for turning legacy modernization challenges into high-impact results — including a 93% reduction in application load time — while mentoring engineers and aligning technical execution with business goals.

Links

- GitHub - https://github.com/memod
- LinkedIn - https://www.linkedin.com/in/carlos-g-durazo
- Personal Blog - https://blog.carlosdurazo.dev/

Education

Instituto Tecnologico de Tijuana | Tijuana, Mexico
Computer Systems Engineering | 06/2014

Skills

Java Development, Spring Boot, REST API Design, Python Scripting, Cloud Migration (AWS), Adobe Experience Manager, Apache Kafka, CI/CD Pipelines, Docker & Kubernetes, Agile/Scrum, Event-Driven Architecture, Technical Mentorship

Certificates

AWS Solutions Architect Associate

Languages

English, Spanish

Experience

Thermo Fisher Scientific | San Diego, California
Senior Engineering Lead | 06/2025 - 05/2026

- Co-led enterprise migration from Adobe CQ to AEMaaCS, reducing infrastructure-related incidents by ~90% and eliminating platform maintenance burden by transitioning operations to Adobe-managed cloud services
- Established coding standards, unit testing baselines, and best practices for a complex AEMaaCS codebase, enforcing 80%+ code coverage and reducing defect rates while accelerating ramp-up time for new team members
- Sole owner of AEM cloud network integration effort. Configured network interface and coordinated with Adobe support and Thermo Fisher's network team to establish a VPN tunnel connecting AEMaaCS to internal TF services, unblocking content authors from delivering key features dependent on internal APIs
- Reduced publish node traffic by ~70% by documenting Akamai CDN and AEM Dispatcher TTL standards and building automated tooling to validate CP codes and cache headers across production URLs, directly lowering Adobe license costs tied to origin request volume
- Identified and resolved excessive Loki log consumption caused by hardcoded INFO-level calls in the Brightcove AEM connector's VideoPlayer component — built the open-source connector from source, patched the logging behavior, and shipped to production, reducing log output from ~20 entries per request to 1

Thermo Fisher Scientific | Tijuana, Mexico
Staff Engineer | 06/2024 - 06/2025

- Served as informal technical lead for a 6-member distributed team across Tijuana and India, driving architecture decisions, establishing branch strategies and CI/CD pipelines, and contributing to the growth of a mid-level engineer to senior

- Advanced AEMaaCS migration efforts by designing the cloud architecture foundation, integration workflows, and operational standards that carried into production at Fishersci.com
- Designed and implemented a Python microservice to intercept Adobe Journal publish events and forward them to Apache Kafka, eliminating cluster resource strain caused by Adobe-side event retriggering across publish nodes and enabling 4 teams to consume content update data for indexing and site rendering
- Developed event-driven integrations using Adobe Journal and Adobe I/O APIs, ensuring downstream teams receive reliable, real-time page publish and update events at variable scale, from steady low volume up to 300 events per hour during peak activity

Thermo Fisher Scientific | Tijuana, Mexico
Senior Software Engineer | 09/2020 - 06/2024

- Supported AWS EKS migration for 10 applications across two Tijuana-based teams, modernizing infrastructure from vulnerable on-premises servers and reducing infrastructure-related incidents by 75%
- Redesigned the My List feature from the ground up by migrating from legacy Java 8 to Java 11, Oracle to PostgreSQL, and introducing ReactJS, cutting load time from 35 seconds to 2.5 seconds for large lists and eliminating a recurring 10-incident backlog, with zero application-caused incidents in the 4 years since
- Delivered Fishersci.com's first cloud-native, customer-facing application on AWS EKS, setting the architectural precedent that drove React adoption across multiple engineering teams site-wide
- Initiated the offloading of browsing content from Adobe CQ as the first engineer assigned to the project, contributing to the eventual full deprecation of the legacy CMS platform

Thermo Fisher Scientific | Tijuana, Mexico
Software Engineer | 06/2018 - 09/2020

- Maintained 3 customer-facing shopping tools applications on ThermoFisher.com while identifying and resolving critical SQL performance issues in shared list functionality, reducing query load time from 13 seconds to 3 seconds for 50-item lists
- Integrated Science Exchange's third-party API to deliver a new customer-facing laboratory search experience, expanding ThermoFisher.com's service discovery capabilities under a strategic business partnership
- Contributed to a site-wide initiative modernizing backend services with Spring Boot, TDD, and BDD practices, improving service reliability and establishing stronger test coverage standards across the platform
- Extracted and migrated 2 services out of a monolithic application using Apache Camel, simplifying integration flow and improving long-term maintainability of the codebase
- Expanded Quotes functionality to 5 European markets (UK, Ireland, Italy, France, Germany), including localization, multi-currency support, compliance requirements, and integration with a separate regional mainframe, extending B2B and retail quoting capabilities internationally

Samsung Electronics Mexico | Tijuana, Mexico
Software Engineer | 08/2014 - 05/2018

- Led a 5-member DevOps/DataOps team responsible for 24/7 system uptime across Smart TV app and ACR platforms, managing on-call rotations, monitoring dashboards, and incident response
- Resolved approximately 20 Smart TV app defects per month across app management and ACR platforms, consistently exceeding team throughput benchmarks and maintaining high-quality delivery standards
- Automated weekly data reporting from a proprietary Smart TV event data warehouse, eliminating recurring ad hoc data pull requests and freeing team capacity for higher-priority work
- Mentored 2 team members on system monitoring and troubleshooting best practices, and collaborated with engineering teams across multiple countries including Korea on new functionality rollouts and testing