

Melvin Castro

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Software Engineer

Motivated software engineer early in their career with experience in the development of API and Cloud services from an industry leading business. Primarily back-end development, with a focus on cost-effective, scalable, and customer focused solutions. Proven experience with Java, TypeScript, AWS, Agile, SLDC, DevOps operations, and testing design/implementation through major projects at AWS, including the implementation of the update template handler and overall testing design of Git-Connections; An asynchronous IaC service that allowed real-time syncing of IaC templates (terraform, cloudformation) between git providers and AWS Service Catalog.

Areas of Expertise

Software Engineering | New Feature Development | Team Leadership | Agile and Scrum Methodology
Code Reviews | Debugging | Troubleshooting | Documentation | Technical Support | Communication

Technical Skills

Java | AWS (CloudFormation, Lambda, EC2, CloudWatch, RDS etc) | Version Control (Github, bitbucket) | Python
GO | mySQL | TypeScript | Linux, Unix, Bash, Zsh | HTML | CSS | JavaScript | Node.JS | AWS SDK for Java

Professional Experience

Amazon Web Services, New York Software Development Engineer

February 2022 – July 2023

Served as an engineer on Service Catalog's developer experience and developer tools team. Provided support, design, documentation, code, and handled DevOps for services such as Service Actions, CDK, Git Connections, and an internal business metrics gathering service. Adhered to Agile and Scrum principles and made regular rotations as a scrum master. Led meetings, such as sprint planning, stand-ups, and backlog grooming on a bi-monthly basis.

- Created scalable code and efficient testing designs with a focus on customer obsession, automated test-driven development, and Amazon's established coding standards (primarily in java and typescript). Identified and delivered technical solutions based on customer feedback and bug reports.
- Development and maintenance of Service Catalog's APIs. Including development of lambda handlers through AWS' SDK for Java, testing through testNG and Mockito, and build tools such as Gradle and Ant.
- Creation of Unit, integration, boundary, and end-to-end testing using Java; alongside resources such as Gradle, Guice, JaCoCo
- Collaborated across teams to provide technical and design support, feedback, and code reviews.
- Utilization of TypeScript and Node.JS to deploy cloud resources through AWS CDK.
- Development/management of Alarm monitoring services used for our APIs (TypeScript)
- Management of CI/CD pipelines for services such as Git Connections, Service Actions, internal business metrics project, internal team version sets, through the use of AWS Pipelines
- Establish IT Automation for new services through use of AWS Lambda (Java); Teams at AWS are required to handle devOps for their services, requiring Automation to lighten the burden for our on-call engineers
- Participated in 7-day on-call rotations with a focus on operational excellence, ticket reduction, CI/CD pipeline blockage mitigation, and addressing customer raised issues.
- Other on-call tasks included: Administration of cloud resources, Querying Cloudwatch Metrics(SQL) and Cloudwatch Logs (Involves SQL-Like Querying). CloudTrail, Amazon Pipelines management of our Services, Ticket-tracking, triage with stakeholders in response to raised issues

Major Projects at AWS:

- **Project Drano:** Served as the sole engineer on team tasked to coordinate with Service Catalog's testing strategy led to deliver POC testing framework for the organization. Focusing primarily on improvement of CI/CD pipelines, scalable testing, efficient use of IAC, fixtures, dependency injection, and resource clean-up. Led to a 60% reduction in pipeline blockages for team over a 3-month span, and organization- wide adoption of framework. Test cases were written in Java using the AWS SDK for Java, along with tooling such as Guava and Guice. Relevant resources were deployed using AWS Cloud development Kit.
- **Git Connections:** Lead on the testing design and implementation of the workflow that would update templates in AWS. Served as one of two internal points of contact for the feature after launch, providing support for updates, major customer raised issues, and general design questions. Development was primarily in Java for the service itself, while resources were defined in TypeScript using AWS CDK. Along with database operations using AWS RDS and SQL. Post Release; I delivered feature changes that would improve customers development efforts. Most recently the version-naming changes for git-synced product templates, streamlining automated workflows relying on consistent version-naming.
- **Internal Business Metrics Service:** Participated in the transfer of an internal business metrics data lake from one team to ours; Migrated pre-established Hammerstone jobs (Internal ETL service) to use AWS Glue Jobs for data transformation. Managed DAG workflows in Airflow

**Green Expert Technology
Junior Software Engineer****November 2021 - February 2022**

Served as a junior engineer for a government contractor that supports the U.S. Navy. Followed Agile and Scrum principles. Supported development of software controlling electrical systems for Destroyer-class naval ships.

- Conducted end-to-end testing of new builds on electrical systems at land-based test site, providing quality assurance for live use cases.
- Collaborated with electrical engineering team to provide feedback and conduct code reviews.
- Adhered to agile principles, participating in Sprints, sprint planning, stand-ups etc
- Received Secret security clearance.
- Reviewed technical documentation and specifications of electrical systems.

Education**Bachelor of Science (BS), Computer Science**

Rowan University, Glassboro, NJ

Relevant Coursework

- Web Programming
- Distributed Systems
- Cyber Security: Fundamentals, Principles, and Applications
- Software Engineering
- Data Structures & Algorithms
- Advanced Programming Workshop: JavaScript

Languages

Bilingual in English and Spanish