

MARIO RODRIGUEZ

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SKILLS

Programming Languages: Java, Python, Bash

Big Data & Streaming Technologies: Akka Streams, Kafka, Apache Spark, Hadoop

Databases: Elasticsearch, MySQL, PostgreSQL, S3

Cloud Platforms: Azure (Event Hubs, DevOps)

Data Visualization & Monitoring: Prometheus, Loki, Grafana, Kibana, Kamon, Cinnamon

CI/CD & Containerization: Azure Pipelines, GitHub Actions, Docker, Kubernetes

Soft Skills: Leadership, Team Collaboration, Effective Communication, Rapid Learning

WORK EXPERIENCE

Software Developer II, General Motors – Austin, TX

March 2024 – August 2024

- Built and optimized a high-performance data pipeline using Akka Streams, processing real-time data ingestion from Azure Event Hubs, achieving 100% data ingestion for the EV fleet
- Developed robust Java-based ETL processes for trip data formation, leading to a 99% accuracy rate in data completeness and quality.
- Enhanced CI/CD processes using GitHub Actions, reducing deployment times by 60% and achieving a consistent 99% pipeline success rate.
- Implemented Prometheus, Loki, and Grafana for monitoring and visualizing pipeline performance and health metrics, increasing system reliability and reducing average issue resolution time from 2 hours to under 1 hour.

Software Developer I, General Motors – Austin, TX

February 2021 – March 2024

- Developed the Digital-Twin Road Network (DTRN) application using Java and Akka for actor-based concurrency, enabling real-time digital representation of vehicles on a map, capable of processing ~1 million request messages per second from the vehicles
- Optimized performance by reducing garbage collection time and decreasing the latency of Akka actors from an average of 1.5 seconds to under 100 milliseconds, significantly enhancing system responsiveness
- Optimized Data Structures to enable faster lookups following lat/lon map matching, greatly increasing the accuracy of vehicle location tracking to within 5 meters
- Facilitated the swift resolution of critical production issues by leveraging Kamon, Prometheus, and Grafana for comprehensive monitoring and health metrics
- Collaborated with a team of 10+ developers and data scientists to implement and deploy statistical logic, enhancing data processing models and improving predictive analytics accuracy by redefining data models and algorithms

IT Analyst, General Motors – Austin, TX

February 2020 – February 2021

- Resolved 95% of production environment incidents within SLA for GM's GPSC, CCA, and SAP systems
- Repaired computer systems, hardware, and peripherals, resulting in a significant decrease in technical issues and contributing to a smoother and more efficient operational environment
- Provided in-house IT support with an 85%+ resolution rate for technical issues, consistently meeting or exceeding user satisfaction targets and maintaining high service quality

United States Marine Corps, Camp Pendleton, CA

September 2011 – April 2015

- Led a squad of 10+ Marines as a Non-Commissioned Officer (NCO), ensuring effective training, operational readiness, and overall well-being in both combat and non-combat scenarios
- Maintained accountability for equipment worth over \$500,000, ensuring zero loss or damage
- Trained over 75 junior leaders, enhancing unit readiness and leadership capabilities

EDUCATION

Bachelor of Science in Computer Science

University of California, Irvine