MARIO RODRIGUEZ

Austin, TX 78660 | (202) 751-8592 | marodriguez92@gmail.com

SKILLS

Programming Languages: Java, Python, Bash
Databases: Elasticsearch, MySQL, PostgreSQL
Tools: Akka Framework, Git, GitHub Actions, Azure DevOps, Docker, Kubernetes, Protocol Buffers, gRPC
Data Visualization: Prometheus, Loki, Grafana, Kibana, Kamon, Cinnamon
Soft Skills: Leadership, Team Collaboration, Effective Communication, Rapid Learning
Languages: Spanish (Fluent), English (Fluent)

WORK EXPERIENCE

Software Developer II, General Motors – Austin, TX   March 2024 – Present

- Designed an extensive data pipeline using Akka Streams for real-time data ingestion from Azure Event Hubs, currently capable of consuming 100% of all electric vehicle (EV) data fleet wide
- Developed Java logic for correct trip formation from multiple events in real-time, achieving 99% trip completion accuracy and enhancing downstream data accuracy and reliability
- Built and supported complex CI/CD pipelines using GitHub Actions, achieving a 99% success rate, and reducing deployment time by 60%, cutting average deployment time from 25 minutes to 10 minutes
- 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, resulting in faster detection and troubleshooting of critical issues

Software Developer I, General Motors – Austin, TX   February 2021 – March 2024

- Implemented a Digital-Twin Road Network (DTRN) application using Java and Akka for actor-based concurrency, enabling real-time digital representation of vehicles on a map using Elastic/Kibana, 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
- Integrated a Ball Tree data structure in Java to enhance nearest neighbor searches following latitude/longitude map matching, increasing vehicle location tracking accuracy 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 capabilities 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, enhancing system stability and minimizing downtime
- 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