MARIO RODRIGUEZ

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SKILLS

Programming Languages: Java, Python, Bash
Tools: Akka Framework, Git, GitHub Actions, Azure DevOps, Docker, Kubernetes, Protocol Buffers, gRPC
Data Visualization: Prometheus, Loki, Grafana, Kamon, Cinnamon, Elastic/Kibana
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 all electric vehicle (EV) data fleet wide.
- Developed Java logic for correct trip formation from multiple events in real-time, achieving 98% 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 30%.
- Implemented Prometheus, Loki, and Grafana for monitoring and visualizing pipeline performance and health metrics, significantly enhancing system reliability and reducing issue resolution time by streamlining alerting and troubleshooting processes.

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 the accuracy of vehicle location tracking.
- Maintained and debugged a complex Kubernetes cluster of 150 nodes, achieving 99.9% uptime.
- Ensured rapid resolution of critical production issues, using Kamon, Prometheus and Grafana for monitoring.
- Collaborated with other Developers and Data Scientists to implement and deploy statistical logic, enhancing data processing capabilities and improving predictive analytics accuracy.

IT Analyst, General Motors – Austin, TX February 2020 – February 2021

- Supported GM's GPSC, CCA, and SAP production environments by resolving 95% of incidents within SLA.
- Repaired computer systems, hardware, and peripherals, leading to a 40% reduction in downtime.
- Provided in-house IT support with an 85%+ resolution rate for technical issues, consistently meeting or exceeding user satisfaction targets.

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