

Marcelino Jackson

Senior DevSecOps Architect & GenAI/LLMops Engineer

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Professional Summary

Principal/Lead Architect with 20+ years delivering zero-to-one digital transformations in regulated sectors including nuclear, government, insurance, airlines, healthcare, transit, and DOE labs. I connect executive strategy to hands-on engineering, delivering policy-first CI/CD, sovereign and air-gapped AI platforms, secure IaC, and data and AI pipelines across Azure, AWS, and Snowflake, with recent wins in CortexAI governance and CI/CD 2.0 modernization using multi-LLM guardrails, Mistral tuning, and AIOps self-healing.

Work Status

US Citizen with Secret 'Q' Dept-of-Energy(DOE) Clearance

Work Accomplishment Highlights

Blue.Cloud

Oct 2025 to Present

Senior AI/ML/DevSecOps Architect - Remote

- Re-architected and improved a multi-stage Docker pipeline producing 12 images across various Linux flavors for multi-cloud deployments, compiling Hadoop LZO native libraries to reduce image size by 38% and build time by 22%.
- Led and mentored a distributed team of engineers, conducting code reviews and architectural planning sessions to ensure consistent delivery of the GitOps roadmap.
- Deployed a self-service Snowflake Intelligence platform (Cortex Agents, Analysts, Search) serving 200+ daily queries, enabling users to query data via NLP and eliminating developer dependencies for ad-hoc SQL generation.
- Enforced strict RBAC and dynamic AISQL governance within an existing Snowflake customer account, achieving 90% coverage with double access controls for sensitive customer interactions.
- Led a strategic POC as Senior AI/ML Architect utilizing Snowflake ML, Cortex AI, and AISQL on targeted data subsets to predict casino denominations and profitability margins by ship, voyage, and machine.

Mass General Brigham

Apr 2025 to Sep 2025

DevSecDataOps/CICD Architect (Consultant) - Remote

- Architected and delivered "CI/CD 2.0" modernization for Azure DevOps and Snowflake, implementing Policy-as-Code guardrails that reduced deployment lead times from days to hours.
- Evangelized "CI/CD 2.0" adoption across the engineering organization, conducting lunch-and-learns and writing documentation that accelerated developer onboarding.
- Engineered CortexAI multi-LLM governance, using structured prompts to enforce dbt/SQL standards and inject automated PR feedback, successfully blocking 100% of non-compliant code during POC validation.
- Fine-tuned Mistral 7B models on anonymized clinical feedback with human-in-the-loop sampling, improving sentiment analysis accuracy by 9% and reducing manual labeling effort by 30%.
- Deployed interactive sentiment dashboards that surfaced patient issue trends in real-time, enabling leadership to prioritize and resolve critical patient-facing fixes 40% faster.
- Implemented RAG-based semantic validation within CortexAI to check dbt models against business documentation, reducing false positive alerts in code reviews by 60%.
- Automated Snowflake security policies (Row-Level Security and Column-Level Masking) via Terraform-based CI/CD, ensuring sensitive data controls are deployed alongside analytics code with zero manual intervention.
- Scaled and optimized Azure DevOps agent pools by integrating OpenShift and AWS-hosted runners, improving build reliability to 99.9% and increasing concurrent pipeline throughput by 50%.
- Modernized Python dependency management by migrating to UV, which accelerated pipeline execution speeds and improved overall efficiency by 40%.
- Engineered self-healing pipeline mechanisms with AIOps feedback loops, proactively detecting errors and reducing manual re-runs for failed builds by 75%.

Idaho National Laboratory

May 2024 to Apr 2025

Senior DevOps Engineer - Remote

- Built comprehensive Azure DevOps dashboards via REST APIs and Python to track agent uptime and pipeline metadata, reducing Mean Time to Detection (MTTD) for build failures by 24% and increasing overall pipeline visibility by 35%.
- Managed regulated build/release pipelines with strict gates and environment controls for mission-critical orgs, maintaining 100% compliance with DOE security standards for vendor and internal releases.
- Acted as the technical liaison between engineering and DOE compliance officers, negotiating security controls that satisfied federal requirements without stifling innovation.
- Deployed automated GitGuardian onboarding triggered by PRs to enforce secret detection across all repositories, reducing secret exposure incidents by 31% and decreasing audit findings by 20%.
- Led enterprise architecture initiatives to drive hybrid Azure/AWS adoption, establishing modern DevSecOps patterns that were adopted by 3 major internal divisions.
- Evaluated Airflow, n8n, and Apache NiFi in POCs to replace legacy schedulers; used local LLMs to auto-generate Terraform/Ansible templates (40% faster creation, 55% higher reuse), validated hybrid Azure/on-prem flows with zero data loss under back-pressure, and identified lift-and-shift, rewrite, or deprecate paths per workload.
- Architected an on-prem LLM pipeline (Ollama + LangGraph + RAG) to process TB-scale historical logs, automating anomaly detection and reducing incident triage time by 22%.
- Built a GitOps-backed Terraform platform for Citrix ADC load balancers, including VIPs, persistence, monitors, and backends, with gated deployments to dev, pre-prod, and prod. Created a Streamlit self-service intake that generates YAML for CI/CD-driven Terraform applies, eliminating manual drift and enabling one-click visibility.
- Integrated observability tools (WordPress logging, PagerDuty, Slack) with custom dashboards, reducing troubleshooting to minutes vs. hours while correlating pipeline signals with runtime incidents.

Washington Metropolitan Area Transit Authority (WMATA)

Dec 2023 to May 2024

DevSecOps Team Lead (Consultant) - Remote

- Designed a comprehensive DevSecOps modernization roadmap adopted by 6 major product teams, standardizing tooling processes and reducing delivery variance by 18% across the organization.
- Overhauled branching and deployment workflows to a streamlined model, increasing release frequency by 25% while simultaneously slashing production rollback rates by 16%.
- Aligned agile delivery strategies across diverse business divisions, accelerating leadership time-to-approval by 20% and reducing requirement churn by 14%.
- Championed the cultural shift to an "AWS-first" mindset, mentoring legacy system administrators on modern cloud practices and IaC methodologies.
- Engineered CI/CD-integrated ELT pipelines using AWS Fargate and Azure DevOps, standardizing dbt deployments and cutting transformation deployment times by 50%.
- Architected automated data ingestion pipelines bridging Snowflake and external sources, processing daily TB-scale feeds via custom connectors with zero manual intervention.
- Built resilient, parameter-driven Python orchestration for Change Data Capture (CDC) patterns, ensuring 99.9% data synchronization accuracy across hybrid AWS and on-prem systems.
- Implemented automated data quality gates within Snowflake pipelines to validate schema consistency, detecting anomalies pre-production and reducing downstream data defects by 25%.
- Led the strategic migration from Bamboo to GitHub Enterprise and HashiCorp Vault, completing the transition 3 weeks ahead of schedule and reducing annual CI infrastructure costs by 12%.

Upland Capital Group (Insurance Startup)

Jan 2023 to Nov 2023

Principal – DevSecOps & DataOps - Remote

- Engineered a custom PowerBI CI/CD framework via CLI and Microsoft Graph, avoiding premium licensing costs of \$180k/year while reducing report onboarding time by 35%.
- Administered OKTA SSO and Snowflake-Salesforce integrations with governed dbt models, resolving identity friction to cut login issues by 28% and reducing data sync latency by 30%.
- Automated Snowflake infrastructure (RBAC, warehouses, schemas) using Terraform-driven GitOps, slashing environment provisioning time by 45% and reducing configuration drift by 38%.
- Co-authored the AWS/Azure hybrid data strategy, integrating Snowflake, dbt Core, and Fivetran to boost pipeline throughput by 26% and increase data availability by 15%.

- Streamlined ELT pipelines using Fivetran and Python-wrapped dbt workflows, accelerating the ingestion of external vendor feeds by 40%.
- Designed parameterized orchestration templates for Change Data Capture (CDC), supporting multi-environment deployments with 99.9% execution reliability.
- Developed SQL-based data validation suites for lineage and reconciliation, detecting 95% of data anomalies before they reached production dashboards.
- Implemented data observability for dbt models and Snowflake schemas, improving data freshness transparency and reducing time-to-fix for schema changes by 50%.
- Authored and pitched the 3-year DevSecOps strategy directly to the CIO and Board, securing budget approval for the transition to Snowflake and automated governance.
- Established the Salesforce DevOps Center operating cadence, aligning CRM releases with data platform transformations to reduce deployment conflicts by 20%.

RLI Insurance Company – RLIConnect (Innovation Group)

Feb 2021 to Jan 2023

DevSecOps Architect & Engineer - Remote

- Engineered unified Azure/AWS DevSecOps pipelines for micro-services, standardizing deployment patterns to increase release frequency by 20% and reduce change failure rates by 17%.
- Defined and enforced a "Security-First" deployment stance, integrating automated SAST/DAST gates that reduced production security findings by 23% and accelerated approval cycles by 18%.
- Developed custom Golang CLI utilities to bridge gaps in the CI/CD toolchain, mentoring engineers on GitOps workflows that slashed manual intervention steps by 30% and reduced developer onboarding time by 25%.
- Established a "Community of Practice" for GitOps, personally mentoring 10+ developers to elevate the team's overall cloud maturity.
- Architected a hybrid Kubernetes platform (AKS, EKS, On-Prem) using Ansible and Terraform, creating a scalable "paved road" for infrastructure that reduced environment build times by 40% and minimized configuration drift by 29%.
- Institutionalized Chaos Engineering and DataOps practices for critical data stores (Snowflake, MongoDB), driving a resilience initiative that lowered defect escape rates by 19% and improved system recovery times by 21%.

Earlier Career

- Employers Insurance Company, Reno NV - **Lead DevOps Engineer** (2018-2021)
- State of Nevada (MVIT), Carson City NV – **Principal IT Consultant / Lead Architect** (2013-2018)
- Enstar Group (SeaBright Insurance), Seattle WA – **Technical Leader & SME Developer** (2011-2013)
- CarMax, Richmond VA – **Professional Software Consultant** (2010-2011)
- Southwest Airlines, Dallas TX – **Senior Software Engineer** (2003-2010)

Personal Principles

Practice-Kindness, Trust-by-Default, Own-the-Outcome, Growth-Mindset, Mutual-Respect, Customer-Results-Focused, Over-Communicate, Always-Learning, Today-Matters, Be-Open-Minded, and Enjoy-What-You-Do.

Technical Competencies

Category	Tools & Expertise
Cloud Platforms	Architected and deployed solutions across Azure, AWS, GCP, IBM Cloud, Oracle Cloud, Confluent Cloud, Linode, DigitalOcean; hybrid and multi-cloud strategies
AI/LLMOPs & Automation	Applied Snowflake CortexAI (Agents/Analysts/Search, AISQL), Snowflake COMPLETE, Ollama, LangChain, LangGraph, LangSmith, CrewAI, OpenRouter API, LLaMA-70B, Mistral for RAG, embeddings, sentiment analysis, anomaly detection, and AI-assisted IaC within secure, CI/CD-integrated workflows.
CI/CD & Orchestration	Designed secure pipelines with Azure DevOps (Pipelines, Releases, Dashboards) and Azure Pipelines, GitHub Actions/Enterprise, GitLab CI, Jenkins, Ansible AWX/Tower, Salesforce DevOps Center, AWS CodePipeline/Batch, Apache Airflow/NiFi, n8n
Infrastructure as Code (IaC)	Delivered scalable IaC with Terraform, Pulumi, ARM Templates, CloudFormation, Ansible, Chef, Brainboard, Deck, WinRM, PowerShell, Bash

Containers & Kubernetes	Built enterprise platforms with Docker, Kubernetes (AKS, EKS, OpenShift, Rancher, k3s), Helm, ArgoCD, FluxCD, Kustomize, OpenShift Runners
DataOps & Analytics	Enabled workflows with Snowflake, Snowflake CortexAI, dbt Core/Cloud, Amazon Redshift, Fivetran, Airbyte, Snowpark Container Services, IBM DataStage, MongoDB, PowerBI (REST/CLI automation), ETL/ELT pipelines, vendor feed integration
Security & Compliance	Embedded DevSecOps practices using GitGuardian, Snyk, Wiz, Aqua, Black Duck, Kenna, Rapid7, Accertify fraud workflows, HashiCorp Vault, Azure Key Vault, GitOps governance, SAST/DAST, Policy-as-Code, Zero-Trust practices, PCI/SOX alignment
Identity & Access Management (IAM)	Administered authentication and SSO with OKTA (OAuth, SAML, MFA), Azure AD, Active Directory/LDAPS, role-based access controls (RBAC), and secrets management
Monitoring, Observability & AIOps	Implemented observability stacks with Prometheus, Grafana, Loki, ELK/EFK, Dynatrace, DataDog, New Relic, Moogsoft, AWS CloudWatch, PagerDuty, Tidal, custom Python + REST dashboards, proactive anomaly detection
Programming & Development	Delivered solutions in Go (Golang), Python, Java, C#, .NET, PowerShell/Core, Node.js, Angular, JavaScript, C/C++/Visual C++, Swift, VB.NET/PowerBuilder; built REST APIs and custom Golang CI/CD utilities
Testing, QA & Reliability Engineering	Automated testing with k6, Postman, Insomnia, Selenium, ReadyAPI, NeoLoad, WinRunner/LoadRunner/HP Quality Center; integrated chaos engineering and regression testing into CI/CD
Networking, Gateways & Security Edge	Secured services with Kong API Gateway, AWS API Gateway, NetScaler, Cloudflare, Kuma Service Mesh; integrated Swagger/OpenAPI governance
Workflow & Low-Code Automation	Accelerated delivery with Mendix, Microsoft Power Automate, Salesforce DevOps Center, PowerBI automation, n8n, ActiveBatch, IBM Tivoli/Maestro/JAMS
Dashboards, Visualization & Reporting	Built Azure DevOps Dashboards (Pipelines, Agents, Pools, Releases), Dynatrace and Grafana boards, PowerBI visualizations, Python + REST reporting
Legacy Modernization & Migration	Modernized legacy workloads including IBM FileNet, SQL Server, REST services; migrated Bamboo -> GitHub and Jenkins -> modern CI/CD pipelines
Collaboration & Agile Delivery	Directed Agile/Scrum teams, aligned stakeholders, authored DevSecOps strategies, and guided cross-functional delivery across enterprise programs
Architecture & Governance	Contributed to enterprise architecture roadmaps, hybrid-cloud adoption, CI/CD blueprints, DataOps modernization, and governance frameworks