Mohammed B..
Senior AI Infrastructure Builder, DevSecOps, SRE

SUMMARY

- 20 years of SRE expertise delivering scalable, containerized infrastructure and fault-tolerant systems across multiple countries
- Firecracker expert with high-level command of security isolation and network isolation. Architected and tuned microVM sandboxes that provide true kernel separation and tightly scoped networking, setting a high bar for safe execution of untrusted workloads.
- Founder of Pullrun (pullrun.dev), a 12MB Rust-native universal runtime unifying OCI image execution across containers, VMs, Kubernetes, and AI agents with native MCP AI orchestration
- Proficient in Rust, Go, Python, Kubernetes, Docker, Prometheus, Grafana, Terraform, and Ansible.

TECHNICAL SKILLS

Main Technical Skills	Rust, Firecracker, Firecracker MicroVMs
Programming Languages	Go, PHP, Python, Rust
AI & Machine Learning	AI
Java Frameworks	Apache Spark
Scala Frameworks	Apache Spark
Python Frameworks	Django
Data Analysis and Visualization Technologies	Apache Spark
Databases & Management Systems / ORM	Apache Hadoop, Apache Spark, ELK stack (Elasticsearch, Logstash, Kibana), SQL
Cloud Platforms, Services & Computing	AWS, Azure, OCI
Azure Cloud Services	VMs
Deployment, CI/CD & Administration	Ansible, Jenkins
Third Party Tools / IDEs / SDK / Services	Asterisk
Scripting and Command Line Interfaces	Bash

Methodologies, Paradigms and Patterns	DAG (Directed Acyclic Graph), UML
Mail / Network Protocols / Data transfer	DNS, GRPC
Virtualization, Containers and Orchestration	Docker, Docker Compose, Firecracker MicroVMs, Kubernetes, Terraform
Version Control	Git
Logging and Monitoring	Grafana, Prometheus
Operating Systems	Linux
SDK / API and Integrations	MCP
Other Technical Skills	Apple Virtualization, CRI, Directed Acyclic Graph, Model Context Protocol, SRE, VM

WORK EXPERIENCE

Sole Creator & Maintainer, Pullrun

Duration: Mar. 2026 - Present

github.com/pullrun/pullrun

Summary: Building Pullrun - a Rust-native platform that unifies container, VM, Kubernetes, and AI agent execution from a single OCI image. It features a content-addressed DAG store, P2P image distribution, native CRI shim, Docker Compose support, and an MCP server that lets AI agents manage workloads through natural language. All in a single 12 MB static binary with no daemon or overlayfs.

Responsibilities:

- Solely designed and built Pullrun end to end: a Rust/Go runtime that boots any OCI image as a Linux container, Firecracker microVM, or Apple Silicon VM from one ~14 MB CLI plus ~6 MB runtime daemon.
- Engineered a zero-copy, content-addressed DAG storage engine (rkyv + mmap + DashMap) that replaces overlayfs entirely, removing a class of container-escape vulnerabilities while letting containers and VMs boot from the same image with no separate build step.
- Built a peer-to-peer image distribution layer (gRPC, Bloom filters, mDNS/gossip) so a cluster pulls each image from the registry once and every other node syncs deduplicated blocks at LAN speed. • Implemented a Kubernetes CRI shim (RuntimeService/ImageService) with RuntimeClass support for both containers and Firecracker VMs, plus a control-plane scheduler/agent stub communicating over gRPC.
- Developed a native Model Context Protocol (MCP) server exposing 15 tools and 4 resource types, so AI coding agents such as Claude Code, Cursor, and opencode can pull, run, build, and manage workloads through natural language.
- Wrote a Dockerfile-compatible build engine, a Docker Compose-compatible orchestrator, and a policy engine covering Cosign signature verification, SBOM/CVSS scanning, and seccomp profiles. • Drove performance to ~400 ms container boot and ~160 ms Apple Virtualization VM boot with a 24.6 MiB idle daemon footprint, and authored the hyperfine-based benchmark suite used to validate the numbers.

- Maintained 247 automated tests (194 Rust, 53 Go) across an 11-crate Rust workspace and the Go CLI/CRI/Compose modules, with full CI gating (cargo fmt, cargo test, go test, golangci-lint) on every commit.

Technologies: Rust, OCI, Kubernetes, Docker, AI agents.

Site Reliability Engineer, Containerized Infrastructure Solutions for International Clients

Duration: 2018 - Jan. 2026

Summary: Provided expertise in Kubernetes, Docker, and other containerized infrastructure solutions for clients in the USA, UK, and France. Set up scalable, containerized environments to improve system performance and reduce deployment time, tailored to the specific needs of each client.

Responsibilities:

- Designed and implemented scalable containerized environments.
- Optimized infrastructure for secure and resilient application deployment.
- Enhanced reliability and scalability for diverse workloads.

Technologies: Kubernetes, Docker, containerized infrastructure.

Senior Site Reliability Engineer/Voice Systems Engineer, Vorax Technologies (In-house Call Center Platform)

Duration: 2012 - 2020

Summary: Engineered an in-house call center solution on Linux with Asterisk, using Python for backend integration with agent-facing frontend applications. Deployed and configured hundreds of call center setups for clients, managing full-cycle deployment and ensuring 24/7 operational reliability.

Responsibilities:

- Engineered an in-house call center solution on Linux with Asterisk, using Python for backend integration with agent-facing frontend applications.
- Deployed and configured hundreds of call center setups for clients, managing full-cycle deployment and ensuring 24/7 operational reliability.
- Built fault-tolerant systems and monitoring solutions that improved incident response times and maintained high availability
- Built robust support and monitoring systems to ensure continuous operations and minimal disruptions, proactively resolving technical issues for seamless customer service delivery.

Technologies: Linux, Asterisk, Python.

Site Reliability Engineer, NDA

Duration: 2018 - Present

Summary: Clients in the USA, UK, and France.

Responsibilities:

- Provided expertise in Kubernetes, Docker, and other containerized infrastructure solutions.

- Set up scalable, containerized environments to improve system performance and reduce deployment time, tailored to each client's needs.
- Enabled international clients to optimize infrastructure and deploy secure, resilient applications, enhancing reliability and scalability for diverse workloads.
- Delivered custom solutions for clients, communicated technical setups clearly, and provided ongoing real-time support and troubleshooting.

Technologies: Kubernetes, Docker.

System Engineer, SAADNET ISP (ISP Infrastructure Setup and Management)

Duration: 2004 - 2012

Summary: Played a key role in establishing one of Algeria’s first internet service providers. Responsible for setting up and managing access servers, core routers, email and hosting servers, and DNS infrastructure. Led design and implementation of monitoring tools and automation scripts.

Responsibilities:

- Played a key role in establishing one of Algeria's first internet service providers, setting up and managing access servers, core routers, email and hosting servers, and DNS infrastructure.
- Led the design and implementation of monitoring tools and automation scripts, improving operational efficiency and reducing downtime by 30%.
- Collaborated closely with cross-functional teams to scale services, support business growth, and integrate new technology stacks.
- Provided direct support to end-users for system issues, enhancing customer satisfaction and efficiency by resolving issues promptly.

Technologies: Linux, network infrastructure, automation scripts, monitoring tools.

EDUCATION

- **University of Sciences and Technology Houari Boumediene**
  Bachelor of Software Engineering