

Murali Koppula

(724) 624 2579 • [✉ murali.koppula@acm.org](mailto:murali.koppula@acm.org)
[🌐 murali.koppula.net](https://murali.koppula.net) • [🐙 murali-koppula](https://github.com/murali-koppula)



Senior Infrastructure professional with specialization in backend tooling and expertise in Open-Telemetry instrumentation and event-driven architectures. Proven track record in augmenting enterprise infrastructure through high-impact automation and the design and development of custom tools.

Skills

Observability	OpenTelemetry (OTel) Agents, Collectors, and OTel backends — Jaeger, Prometheus, Dynatrace, Azure Monitor / Application Insights
Backend development	Extend the <i>OpenTelemetry Collector</i> by developing custom receivers and exporters leveraging Go API for specialized telemetry ingestion and routing. Develop tools for Infrastructure engineering and automation tasks.
Languages	Go (Golang), Java, Python Bash, Sed, Awk, jq – for glue code.
Architectural	Systems Thinking, Solution Design, POC Validation
Blockchain	Ethereum, EVM, Bitcoin, Hyperledger, Solidity
Messaging	Kafka
Security	PKI/Certificates, SSL/TLS, Encryption Standards
Containerization	MicroK8s, Docker – to develop prototypes
Cloud	Azure, AzCopy
OS	Linux – RHEL, Ubuntu, <i>systemd</i>
Databases & Querying	Oracle, SQL
Frameworks	Spring Boot, Spring Batch
Platform Modernization	Automate the transition of legacy environments – <i>WebSphere, JBoss, Tomcat</i> – to modern architectures.
Automation & CI/CD	Ansible, Jenkins, Git (Version Control)

Professional Experience

- **Self Employed, Consulting & Freelance** Apr 2026 –
 - Observability
 - Open Source Software (OSS) Adaption & Augmentation
 - Tool Development
 - Blockchain Observability, Anchoring, and Security
- **McKesson Corporation, IT Architect** Jan 2020 – Nov 2025
 - Observability
 - Open Source Software (OSS) Adaption & Augmentation
 - Tool Development
 - Platform Modernization
- **Self Employed, Consulting** Jan 2019 – Dec 2019
 - Blockchain Anchoring using OSGi
 - Evaluation study of usecases for Blockchain in energy distribution



- **PNC Financial Services**, Senior Infrastructure Architect Jun 2011 – Sep 2018
 - Platform Certification – Conduct Proof Of Concept (*POC*) work
 - Platform Automation & Modernization
 - Tool Development
- **BNY Mellon**,
 - Lead Architect for Identity Federation
- **SAIC**,
 - Provided Middleware Subject Matter Expertise
- **CMC Corporation**,
 - Lead a geospatial modeling (*GKS*) based project.

Projects

- **File Archival Tool**, Observability, Cloud Native, Golang 2024 – 2025
 - Engineered a custom distribution of *AzCopy* by embedding OpenTelemetry (*OTel*) instrumentation; enabled fine-grained, high-cardinality telemetry to provide real-time visualization of data egress and throughput performance.
- **High Throughput File Monitor**, Observability Tooling, Golang 2024
 - Architected a specialized Go-based *OTel* receiver to eliminate visibility gaps in file-based data streams; successfully transformed unstructured local file-system events into actionable, high-cardinality telemetry for centralized monitoring.
- **Custom Keystore Management**, Security Infrastructure, Golang 2023 – 2024
 - Developed a custom *PKCS12* keystore management utility in Go, extending standard cryptographic formats with an integrated metadata layer for automated certificate provenance and asset versioning.
- **Kafka Telemetry**, Observability, Kafka, Spring Boot, Java 2022 – 2023
 - Architected a standalone Spring Boot observability bridge to instrument Java-based infrastructure; leveraged Micrometer to synthesize high-fidelity metrics from *Kafka* clusters, standardizing data ingestion into centralized OpenTelemetry pipelines.
- **Blockchain Anchoring**, Blockchain Research, Blockchain POC 2019 – Present
 - Architected and deployed decentralized prototypes on *MicroK8s* to evaluate Blockchain Anchoring strategies; successfully demonstrated the feasibility of utilizing distributed ledgers for high-frequency data validation.
- **Ad hoc Tools**, Platform Modernization, Python, Golang, Linux ★ – 2026
 - Developed tools for Infrastructure engineering and automation tasks using suitable languages including *Go*, *Python*, *Java*, *C*, and *Linux* based scripting.

Certifications

- Blockchain Specialization, University at Buffalo & The State University of New York S2019

Coursework

- Virtual Machines internals (JVM), CSCI E-98, Harvard Extension School F2016
- Cloud Computing, CSCI E-90, Harvard Extension School F2015
- Network Architecture and Protocol, CSCI E-40, Harvard Extension School F2014

Education

- M.Tech., Indian Institute of Technology, Kharagpur
- B.Tech., Jawaharlal Nehru Technological University, Kakinada

