Venkatesan Subramanian

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# Professional Summary

AI Platform Engineer | SRE & Observability Specialist | 21+ Years  
Engineering lead with over two decades of experience delivering scalable, intelligent, and resilient platforms across the US, UK, and India. Specialized in Site Reliability Engineering (SRE), AI-powered multi-agent platforms, observability at scale, and cloud-native infrastructure. Proven track record of designing and delivering intelligent systems using LangChain, FastAPI, Kafka, Prometheus, AWS, and ML frameworks. Strong communicator and mentor, with experience collaborating across global teams and business units.

# Professional Highlights

* 21+ years of experience across enterprise architecture, platform engineering, and cloud-native systems
* Successfully designed and deployed GenAI-powered Multi-Agent Conversational Platforms (MCPs)
* Expert in building SRE tools, observability pipelines, and automation frameworks from scratch
* Proven leadership in global environments (US, UK, India) with end-to-end project ownership
* Excellent communicator, mentor, and agile practitioner focused on business-aligned delivery

# Key Skills

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| --- | --- |
| Category | Tools & Technologies |
| GenAI & AI Platforms | LangChain, OpenAI, Prompt Engineering, Multi-Agent Systems |
| SRE & Observability | Prometheus (PromQL), Grafana, Splunk, Chaos Engineering |
| Streaming & Monitoring | Apache Kafka, InfluxDB, Cloud Foundry |
| Cloud & Infra | AWS (ECS, Fargate, Lambda, S3), Azure, Docker, Jenkins, CI/CD |
| Machine Learning | Scikit-learn, Keras, TensorFlow, Pandas, NumPy |
| Languages & Frameworks | Python, Flask, Java, Spring Boot, FastAPI, React |
| Databases | MariaDB, MySQL, MSSQL, Oracle, DynamoDB |
| Dev Tools & Practices | Agile, Jira, Bitbucket, Git, REST APIs, Linux |

# Recent Projects

## MCAP – Wells Fargo

Duration: Jan 2024 – Present

Technologies: React, Python, Flask, Java Spring Boot, Prometheus, Orcacle, Grafana

* Continued the development and enhancement of an enterprise-grade capacity management and observability platform
* Maintained ML-driven anomaly detection and forecasting modules for cloud and infrastructure metrics
* Enhanced distributed job scheduler, refined database automation scripts, and implemented performance improvements
* Built a **Celery-based platform** to stream VROps metrics into the internal observability system
* Planning to use **Celery** framework for distributed ML model execution as well
* Deployment pipeline integrated with **TAS Framework** for microservice orchestration (OCP in progress)
* Implemented unit test coverage and Jenkins-based CI pipeline with guardrails using SonarQube
* Collaborated with internal stakeholders to roll out updated dashboards and insights

## CAPSULES – JPMorgan Chase

Duration: Dec 2020 – Dec 2023

Technologies: Python, Flask, Java, Spring Boot, Apache Kafka, Prometheus, InfluxDB, Docker, MariaDB, Grafana

* Developed a full-stack enterprise-grade application for capacity management and observability
* Architected ML-driven anomaly detection and future forecasting engine
* Built distributed job scheduling and Grafana dashboards for real-time telemetry
* Led Agile sprints and product demos with business teams across locations

## SRE Practice Automation – JPMorgan Chase

Duration: May 2020 – Dec 2020

Technologies: AWS Services, Chaos Testing, Python, Java

* Created a custom SRE automation platform integrated with AWS services and chaos testing tools
* Deployed MVPs with custom metrics, anomaly detection, and capacity prediction
* Integrated Gremlin and Fortify for resiliency and security automation

## Smart SRE Platform – JPMorgan Chase

Duration: Feb 2019 – Jan 2020

Technologies: Python, ML/DL Models, Grafana

* Built a real-time behavioral analytics system across hybrid infrastructure
* Incorporated ML and DL models to forecast critical failures
* Developed modular services for onboarding and observability dashboards

## Cloud Migration – Cognizant

Duration: 2018 – 2019

Technologies: AWS, Azure, CI/CD, Legacy Apps

* Migrated 150+ enterprise applications from legacy datacenters to AWS and Azure
* Led HLDD, infrastructure sizing, CI/CD design, and cloud migration execution

## PCM Platform Development – Cognizant

Duration: 2013 – 2019

Technologies: Python, Flask, InfluxDB, ML Algorithms

* Created Python + ML-based platform for capacity modeling and predictive analytics
* Generated intelligent workload simulations and PDF reports using statistical models

# Employment History

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| Organization | Role | Duration | Location |
| Wells Fargo India PVT Limited | Lead Software Engineer | Dec 2023 – Present | Bangalore, India |
| JPMorgan Chase | Senior Software Engineer | Dec 2020 – Dec 2023 | US |
| Cognizant Technology Solutions | Performance Architect | Jan 2013 – Dec 2020 | India, UK, US |
| Dell International Services | Software Dev Advisor | Aug 2010 – Jan 2013 | Bangalore, India |
| Aspire Systems | Senior Software Engineer | Dec 2009 – Aug 2010 | Chennai, India |
| DNB TransUnion | Lead System Analyst | Nov 2006 – Dec 2009 | Chennai, India |
| AICS / DSRC | Programmer / Trainee | 2004 – 2006 | Chennai, India |

# Education

Bachelor of Science (Mathematics)  
Madras University | 2000 – 2003