RAVI CHANDRAN GANESH

Observability & Monitoring Specialist

Website | LinkedIn | GitHub

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PROFESSIONAL SUMMARY

- Observability engineer with hands-on experience **designing**, **documenting** and **implementing monitoring architectures** for IT infrastructure and applications.
- Led client workshops and team meetings to **gather requirements**, **drive progress updates** and **resolve challenges**.
- Automated workflows using Python scripting and Al-assisted documentation tools.
- Basic AWS skills (IAM, EC2, storage) and enthusiast-level Terraform/IaC experience for cloud resource provisioning.
- Proficient in **Prometheus** (installation, **PromQL**) and **Grafana** dashboards, plus **beginner Dynatrace** setup.
- Deployed and managed **multi-node ELK Docker clusters** with Kafka **ingestion**, Elasticsearch **querying** and Kibana **visualizations**.
- Deep expertise with **IBM Tivoli Monitoring**, **APM**, **Netcool probe rules** and centralized **log** management.
- Skilled in using Elastic Beats (Filebeat, Metricbeat, Packetbeat) for efficient data collection and ingestion pipelines.
- Leveraged **Docker containerization**—and introductory **Kubernetes orchestration**—for scalable **observability** deployments.
- Strong troubleshooting ability and proven track record **integrating diverse tools** and applications into cohesive **observability solutions**.

WORK EXPERIENCE

- Sr. Principal Engineer DarkBlue DevOps | H3O Labs | Hyderabad, India March 2024 – May 2024
- Senior Advisor, IT Architect Wissen Infotech | Dell IT | Hyderabad, India June 2023 – March 2024
- Sr. Software Engineer Information Dynamics | Saudi Payments, Dynatrace (POC) | Riyadh, Saudi Arabia April 2021 – January 2023
- Sr. Software Engineer Jihat Al-Alamiah | Saudi Customs, Saudi Payments | Riyadh, Saudi Arabia October 2019 – March 2021

- Sr. Software Engineer Tech Mahindra | Volvo Cars | Göteborg, Sweden and Pune, India January 2016 – June 2019
- Netcool Developer
 MasterCom Technologies | Etisalat | Pune, India
 November 2014 – December 2015
- Software Engineer Persistent Systems | IBM SmartCloud Enterprise | Pune, India March 2013 – October 2014
- System Engineer i3 Software | 1800flowers.com, APDRP, Erricsson, Nokia Siemens Networks | Hyderabad, India *May 2010 – February 2013*

EDUCATION

- **Master of Computer Application** (2007-2010) from Presidency School of Management & Computer Sciences, Hyderabad (affiliated to Osmania University) with an aggregate of 72%
- **Bachelor of Science** (2002-2005) in Mathematics, Statistics & Computer Science from Pragati Maha Vidhyalaya, Hyderabad (affiliated to Osmania University) with an aggregate of 58%

TECHNICAL SKILLS

- Monitoring & Observability
 - Prometheus
 - The Elastic Stack
 - IBM Netcool Suite & Monitoring
 - Dynatrace
- Containerization & Orchestration
 - Docker
 - Kubernetes
- Infrastructure as Code (IaC)
 - Terraform
- Data Collection & Agents
 - Elastic Beats
 - IBM Agents and Probes
 - Prometheus Exporters
- Centralized Logging & Processing
 - Logstash
 - Splunk (Basic)
- Dashboards & Visualization

- IBM Dash
- Grafana
- Kibana
- Scripting
 - Shell
 - Python
- Cloud Platform
 - AWS
 - Oracle

• Operating Systems

- Windows
- Unix / Linux

• Integration Points

- IBM MO
- Datapower
- ServiceNow
- Dell Storage
- Kafka
- Network Devices using SNMP

PERSONAL PROJECTS

Static Portfolio Website

I designed and deployed a fully custom HTML/CSS portfolio site on an **AWS EC2** instance. Using **Terraform** for IaC, I leveraged the **EC2 'user_data' script** to clone the website code directly from my **GitHub repository** at **launch**, **streamlining provision-to-deploy** in a single step.

GitHub: https://github.com/TechSavvyRC/aws-static-site-deploy; https://github.com/TechSavvyRC/techsavvyrcwebapp

Real-Time Banking Transaction Monitor

I built a **high-throughput data pipeline** in **Docker** using **Kafka** for **ingestion** and the **ELK Stack** for **real-time analysis** and visualization of banking transactions. I then extended this to a **Kubernetes** (**Minikube**) environment to demonstrate **scalable container orchestration** and **service resilience**.

GitHub: https://github.com/TechSavvyRC/elk_docker

OpenTelemetry Observability Demo (In progress)

I'm developing an **end-to-end observability proof-of-concept** integrating **OpenTelemetry** with **Prometheus** and **Elastic Observability**. This showcases **distributed tracing** and **metrics collection**, **central aggregation**, and **dashboarding** to give full visibility into **microservice** performance.

TECHNICAL EXPERIENCE

ELK Stack | 8 years

- **Deployment and Management**: Deployed and managed multi-node ELK (Elasticsearch, Logstash, Kibana) clusters using Docker for centralized logging and real-time data analysis.
- **Data Ingestion**: Configured Logstash for seamless data ingestion from various sources, including Kafka, into Elasticsearch for real-time search and analytics.
- **Dashboard Creation**: Built interactive dashboards in **Kibana** to visualize and monitor system performance, enhancing operational insights and issue detection.
- **Elasticsearch Optimization**: Optimized **Elasticsearch** indices for efficient storage and retrieval, improving data query performance and minimizing storage overhead.
- **Automation**: Developed Python scripts to automate data ingestion, replication of Elasticsearch indices, and the generation of data templates for streamlined operations.
- **Centralized Logging:** Deployed centralized logging solutions using the ELK Stack for monitoring system and application logs, improving log management and analysis.
- **Docker Implementation**: Set up and managed ELK clusters using **Docker containers**, ensuring scalability and efficient resource utilization.
- **Training and Documentation**: Provided training on the use of ELK Stack tools and created detailed technical documentation covering deployment and configuration processes for stakeholders and team members.
- **Monitoring with ELK**: Configured **Kibana** dashboards for real-time data visualization and monitoring, enabling timely detection of system anomalies and performance issues.
- Alerting and Visualization: Integrated Kibana with other tools for alerting and data visualization to improve real-time monitoring capabilities.

Grafana | 8 years

- **Dashboard Creation**: Developed custom **Grafana** dashboards to visualize system performance, application metrics, and infrastructure health, enabling real-time monitoring and decision-making.
- Integration with Monitoring Tools: Integrated Grafana with monitoring tools such as Prometheus, Elasticsearch, IBM APM, and Dynatrace, providing comprehensive and interactive visual representations of key performance indicators (KPIs).
- **Data Visualization**: Created visually intuitive **Grafana dashboards** for monitoring critical metrics, such as application response times, system health, and resource usage, improving operational visibility.
- Alert Configuration: Set up alerting rules within Grafana to notify teams of anomalies and performance issues based on predefined thresholds, improving proactive incident management.
- Monitoring with ELK and Prometheus: Configured Grafana to visualize data from ELK Stack and Prometheus, providing real-time insights into system performance and resource utilization.
- **Email Notification Automation**: Automated the generation and distribution of performance graphs and alerts via email using **Grafana**, enabling faster response times to potential issues.
- **Training and Support**: Provided training to clients and teams on how to effectively use **Grafana** dashboards for monitoring and analyzing system performance, ensuring optimal utilization of the tool.
- **Dashboard Management**: Imported and exported **Grafana** dashboards across environments, streamlining the setup and deployment of monitoring solutions.
- **Multi-source Monitoring**: Configured **Grafana** to monitor and visualize data from multiple data sources, including **Elasticsearch** and **IBM APM**, ensuring comprehensive observability across diverse systems.

Dynatrace | 1 year

- **Deployment and Configuration**: Led the complete implementation of **Dynatrace APM** (Application Performance Monitoring), deploying **OneAgent** and **ActiveGate** for real-time system monitoring and data collection.
- **Synthetic Monitoring**: Configured **synthetic HTTP monitors** to track URL availability and response times, improving system reliability and proactive issue detection.
- Advanced Dashboard Creation: Developed and customized real-time monitoring dashboards in Dynatrace, providing visibility into application performance, infrastructure monitoring, and digital experience.
- **Custom Plugin Integration**: Integrated **extended plugins** for tools like **IBM Datapower** and **IBM MQ**, enhancing the scope of monitoring and improving performance analysis.
- **Performance Optimization**: Leveraged **Dynatrace** for monitoring application performance, infrastructure health, and digital experience management, ensuring optimal system performance.
- **Proof of Concept (PoC) Execution**: Led a **Dynatrace PoC** (Proof of Concept) to evaluate its effectiveness in enhancing system observability and performance monitoring for critical infrastructure.

Python and Shell Scripting | 10+ years

- Developed **Python** scripts for **data ingestion**, **transformation** and enrichment from sources (Kafka, APIs) into **Elasticsearch**, boosting operational efficiency.
- Automated end-to-end **workflows** (post-replication, index management, URL generation) with Python, minimizing manual effort and errors.
- Created Python integrations between **Elasticsearch** and **ServiceNow** for automated **incident management** and faster response.
- Authored **Shell** and Python scripts for **monitoring** infrastructure and applications, enabling real-time performance tracking.
- Engineered custom Python API clients to pull data into monitoring systems (Elasticsearch, IBM APM) and Shell scripts to process logs via **Logstash**.
- Automated **infrastructure provisioning** on AWS EC2 and managed resources across **Linux**/Unix using Shell scripts.
- Extended **Netcool Probes** with Shell scripts for advanced event handling, reducing noise and improving correlation.
- Built Python routines for **backup** and **replication** of Elasticsearch indices, ensuring data redundancy and availability.
- Authored clear **Markdown**-based documentation and delivered training on scripting best practices and automation workflows.

IBM Netcool Suite & Monitoring | 10+ years

- Netcool Omnibus Deployment:
 - Designed, deployed and maintained high-availability IBM Tivoli Netcool Omnibus and the Tivoli Monitoring/APM stack for centralized event and performance management.
 - Architected **multi-tier dashboards** in **IBM Dash (Jazz)**, consolidating data from **APM**, **Netcool** and external tools for **real-time KPI visualization**.
- Custom Probe, Policy & Workflow Development
 - Built and extended Netcool Probe rules (SNMP, CORBA, SYSLOG, EIF, PING) and Tivoli agents to ingest and correlate events from network devices, middleware and applications.
 - Developed advanced Impact policies for event enrichment, deduplication and automated incident response—triggering email notifications and ServiceNow/Remedy ticket creation.

- Wrote custom APM monitoring rules and dashboards to surface performance bottlenecks and SLA metrics.
- Integration & Automation
 - Integrated Netcool/APM/Dash with Grafana and third-party systems (ServiceNow, Remedy, DataPower) to ensure seamless flow of events and alerts.
 - Automated end-to-end incident workflows using Netcool Impact policies, reducing mean time to resolution.
- Training, Documentation & Support
 - Authored comprehensive runbooks, configuration guides and training curricula for Netcool Omnibus, APM agents and IBM Dash dashboards.
 - Led workshops and hands-on sessions for clients and internal teams—enabling self-sufficiency in event management, performance tuning and dashboard customization.

Documentation and Training | 14+ years

- Created detailed technical documentation (in Markdown) for deployment, configuration and management of observability tools (ELK Stack, IBM APM, Dynatrace, Netcool Suite), ensuring clear, standardized operational guides.
- Authored user manuals, implementation guides and workflow documentation leveraging
 Al-assisted tools to capture best practices and streamline knowledge sharing.
- Conducted training sessions and hands-on workshops for clients and cross-functional teams on monitoring solutions (Grafana, Kibana, Dynatrace, Netcool, IBM APM), including incident management and automation using Python/Shell scripts.
- Delivered stakeholder presentations, progress reports and performance reviews to showcase architecture benefits, drive adoption and align on system enhancements.
- Provided comprehensive post-implementation support, documenting custom scripts and processes to enable ongoing maintenance, scalability and continuous improvement.

TRAINING & SELF-STUDY

AWS Cloud

- Managed IAM policies, users, groups and roles for secure access control
- Configured AWS CLI on Windows/Linux for streamlined management
- Created and managed AMIs, Elastic IPs, EBS volumes and understood S3 object storage

Terraform (IaC)

- Applied Infrastructure as Code principles with Terraform, handling state files, configuration files and providers
- Leveraged **modules** to simplify complex resource definitions

Prometheus

- Installed and secured **Prometheus**, managed **scrape configurations** and dynamic target discovery
- Deployed **exporters** to gather metrics from custom services
- Wrote PromQL queries, configured AlertManager rules and built Grafana dashboards

ELK Stack with Docker

- Orchestrated a multi-node **ELK** cluster using **Docker Compose** (coordination, master, data nodes)
- Integrated Logstash with Kafka for real-time ingestion into Elasticsearch
- Designed interactive Kibana dashboards for search and visualization

Kubernetes

- Explored Kubernetes architecture (Pods, Deployments, Services, ConfigMaps, Secrets, Ingress) via Minikube on RHEL
- Managed resources with **kubectl**, implemented **namespace-based** deployments and secured traffic using **Ingress** controllers
- Deployed Kafka, ELK, Prometheus and Grafana in-cluster for logging and monitoring

REFERENCE

- DarkBlue DevOps
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