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.

- Participated in **ELK architecture design** discussions—defining **logging pipelines**, **scaling strategies**, and **high-availability** patterns for **Elasticsearch clusters**.

- Provided technical leadership on **observability** and **monitoring tool** selection, offering end-to-end **ELK Stack** guidance (**indexing**, **RBAC security**, and **dashboard strategy**) to cross-functional teams.

- Led **client workshops** and team meetings to gather requirements, drive progress updates and resolve challenges.

- Automated workflows using **Python scripting** and **AI-assisted documentation** tools.

- Deployed and managed **multi-node ELK Docker clusters** with **Kafka ingestion**, **Elasticsearch querying** and **Kibana visualizations**.

- Skilled in using **Elastic Beats** (**Filebeat**, **Metricbeat**, **Packetbeat**) for efficient data collection and ingestion pipelines.

- Deep expertise with **IBM Tivoli Monitoring**, **APM**, **Netcool probe rules** and centralized log management.

- 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 MQ
  - 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/techsavvyrc-webapp*

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 & Management:** Deployed and managed multi-node **ELK Stack** clusters using Docker containers for centralized logging and real-time data analysis.

- **Containerization:** Architected Docker–based ELK environments, ensuring scalable resource utilization and seamless cluster upgrades.

- **Logstash Pipelines:** Configured **Logstash** for high-throughput data ingestion from **Kafka** and custom sources, implementing filters and parsers for structured indexing.

- **Beats Configuration:** Deployed and tuned **Filebeat**, and **Metricbeat** agents for lightweight, agent-based log and metric collection across hosts.

- **Dashboard & Visualization:** Developed and deployed advanced **Kibana dashboards** and **visualizations**, integrating **alerting** and **anomaly detection** to surface critical operational insights.

- **Cluster Administration & Optimization:** Designed and managed on-premises **Elasticsearch clusters**, tuning **indexing**, **query performance**, and **shard allocation** to minimize latency and storage overhead.

- **Security & High Availability:** Implemented **RBAC security governance**, **SSL/TLS encryption**, and **cross-cluster replication** to meet compliance and ensure **high-availability**.

- **Automation & Scripting:** Automated routine operations—index replication, snapshot backups, and template management—using **Python scripting** and **Ansible** playbooks.

- **Best Practices & Training:** Authored comprehensive technical documentation, led **training workshops**, and championed **logging best practices** to align development and operations teams on observability standards.

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 **AI-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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