# RAVI CHANDRAN GANESH

# Observability & Monitoring Specialist

Website | LinkedIn | GitHub

Phone: +91 8341 9060 62 | Email: ravi.chandran.3084@gmail.com | Nationality: Indian

# **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 Al-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 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/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** 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
   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

Name: Anil Dahiya | Mobile: +91 9315 9373 33 | Email: anil.dahiya@darkbluedevops.com

#### Wissen Infotech

Name: Teenmariya Roy | Mobile: +91 6238 5148 51 | Email: teenmariya.roy@wisseninfotech.com

### Information Dynamics

Name: Abdulaziz Almawash | Mobile: +966 55 522 7225 | Email: abdulaziz.almawwash@gmail.com

### Jihat Al-Alamiah

Name: Rakan AUalajel | Mobile: +966 59 979 6332 | Email: rakan.aljulajil@gmail.com

#### Tech Mahindra

Name: Robin Pollard | Mobile: +31 622 989 651 | Email: robin.w.pollard@gmail.com

#### Volvo Cars

Name: Urban Alho | Mobile: +46 723 231 97 | Email: urban.alho@volvocars.com

#### Persistent Systems

Name: Ashutosh Nirkhe | Mobile: +91 8888 3947 33 | Email: ashutosh.nirkhe@gmail.com

## MasterCom Technologies

Name: Phani Raj | Mobile: +91 7795 0952 02 | Email: pani.r@mastercom.co.in

### i3 Software

Name: Saurabh Barthwal | Mobile: +91 9871 0085 39 | Email: saurabh.barthwal87@gmail.com