RACHANA KALLADA JAYARAJ
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Availability: From May 2024

EDUCATION

Khoury College of Computer Sciences, Northeastern University — **Boston, MA**
Master of Science, Computer Science — Expected May 2025
Relevant Coursework: Programming Design Paradigm, Database Management Systems, Web Development — GPA: 4.0

Dr. Ambedkar Institute of Technology — **Bengaluru, India**
Bachelor of Engineering, Computer Science and Engineering. — Aug 2018
Relevant Coursework: Data Structures & Algorithm Design, Cloud Computing, Unix & Shell Programming, OOPs — GPA: 4.0

TECHNICAL SKILLS

Languages: Golang, Java, Python, Bash Scripting, HTML, CSS, JavaScript
Database & Storage: Oracle, MySQL, Microsoft SQL Server, Amazon S3
Cloud & Distributed Systems: Amazon Web Services, HPE GreenLake Cloud, Docker, Kubernetes, Salesforce
CI/CD & Testing Tools: GitHub Actions, CircleCI, JFrog, Helm, ArgoCD, JUnit, Go Testing Package, Cucumber
Monitoring, Alerting & Streaming Tools: Grafana, Prometheus, Kibana, ServiceNow, PagerDuty, Kafka
Developer Tools & Formats: Git, Jira, Confluence, Postman, Slack, Terraform, REST, SharePoint, YAML, JSON

WORK EXPERIENCE

Cloud Developer II - Hewlett Packard Enterprise — **Bengaluru, India**
Green Lake Cloud Services R&D Department — Jun 2021 – Aug 2023

- Spearheaded open sourcing of HPE repositories by overseeing all stages of OSRB review, boosting downloads by 25%.
- Improved product stability by 20% through development, unit, functional and stress testing of HPE Containers as a Service backend code for BareMetal & Virtual Machines.
- Optimized application uptime and performance by 15% and 20%, respectively, through the implementation of advanced monitoring systems with Grafana, Kibana, ServiceNow, and PagerDuty.
- Reduced feature time-to-market by 10% via streamlined CI/CD deployment using CircleCI, Helm, and ArgoCD.
- Engineered user-friendly terraform providers, resulting in 15% uplift in overall customer satisfaction ratings.

Systems Engineer - Tata Consultancy Services — **Bengaluru, India**
IOT Department (Client: Nielsen Holdings) — Oct 2018 – Jun 2021

- Developed QA methodologies and strategies for upcoming projects, while achieving 14% reduction in product defects.
- Migrated client applications to AWS cloud, reducing infrastructure costs by 10% while improving scalability by 12%.
- Identified and resolved audio and video signal gaps, backend app issues using ServiceNow and developed extensive functional tests for applications written in Go, using Cucumber framework.
- Implemented efficient data monitoring and uploading via Kafka streaming and AWS S3 storage buckets, with added monitoring via Athena queries, resulting in 16% improvement in data processing times.

BLOGS

- Kubernetes Cluster as Code - Part 1
- Kubernetes Cluster as Code - Part 2

PROJECTS

Smart City Management System, NEU — **Oct 2023 – Dec 2023**

- Developed a user-friendly Flask-based web app with SQL Server, enabling city administrators and citizens to manage smart city components such as surveillance cameras, sensors, WiFi zones, and smart signals.
- Enabled visualization and report generation on the GUI for the smart city data.

Load Balancer Manager, HPE — **Jan 2023 – Mar 2023**

- Led the development of the 'Load Balancer Manager,' a cutting-edge application on the HPE GreenLake cloud, enabling external customers to effortlessly access and manage their Kubernetes clusters.
- Implemented dynamic Nginx load balancer deployment, updating configurations to enhance security and eliminate the need for SSH credentials. Developed REST API calls for load balancer creation, configuration updates, IP address retrieval, and deletion.

Containers as a Service on BareMetal, HPE — **Oct 2021 – Dec 2022**

- Engineered Go code for enabling users to effortlessly create, delete, and scale BareMetal clusters (KVM master, bare metal worker).
- Collaborated with a resource orchestrator layer to facilitate essential API calls for deploying bare metal and KVM nodes. Implemented a controller that continually polled the cluster status and reported updates through the GUI to the users.
- Established nightly tests to maintain application integrity. Incorporating multiple enhancements driven by customer feedback.

Human Intruder Detection System, AIT — **Jan 2018 – Jun 2018**

- Designed a robust security solution to enhance safety and protect sensitive areas by automatically identifying and alerting authorities to unauthorized human presence.
- Installed Raspberry Pi with motion detectors and video cameras for remote surveillance, reducing security response time by 20%.
- Engineered a robust alarm system (CPython, OpenCV) for intruder detection, resulting in reduction in false alarms.

Bank Management System, AIT — **Jun 2017 – Dec 2017**

- Implemented a scalable MySQL-based bank customer DBMS with comprehensive features, facilitating streamlined operations by simplifying customer transactions and enhancing overall efficiency.