

# VENKATRAMAN S

## Software Developer

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• GitHub Projects: <https://github.com/Venkatraman28>

## Summary

Highly motivated individual with a strong focus on infrastructure automation, cloud-native solutions, and a passion for solving complex challenges in dynamic, scalable environments. Specialized in cloud infrastructure platforms such as OpenStack, vCD, and VMware vSphere, containerization technologies like Docker. Certified AWS Developer Associate, with proven ability to leverage AWS services for building, deploying, automating and optimizing cloud applications. Proficient in backend and frontend development, DSA and network security using Fortinet firewalls. Proven experience in automating intricate workflows, troubleshooting issues at the code, infrastructure, and network levels, with a focus on building efficient, optimized solutions.

## Experience

### Tata Communications

Chennai

#### Software Developer

07/2023 - Present

##### Image Management and Cloud Technologies

- Handling quarterly VMDK and qcow2 image uploads from DevOps teams across the organization. Streamlined end-to-end process of image ingestion, validation and distribution across multi hypervisor environments including VMWare vSphere, OpenStack and OLVM.
- Optimized the image processing workflows, reducing the SLA for image upload and distribution from 5-6 hours to under 30 minutes, significantly improving delivery timelines and release cycles.

##### OpenStack VM provisioning and Automation

- Led the design and implementation of a robust Spring Boot application using MySQL, Python, RabbitMQ and Camunda BPMN to orchestrate end-to-end VM provisioning workflows with full auditability and control.
- Integrated custom EPB Python modules to manage VM lifecycles via OpenStack APIs, including dynamic compute, network, and storage allocation. Used RabbitMQ for asynchronous, reliable communication between microservices and OpenStack.
- Eliminated manual intervention across the provisioning process, reducing turnaround time from several hours to under 10 minutes and significantly improving delivery velocity, operational efficiency, and customer satisfaction.

##### Inter-VDOM Link and MSOC rules creation (Fortinet Firewall)

- Developed an end-to-end automation framework to configure inter-VDOM links and MSOC rules, enabling secure communication between customer zones and internal services.
- Automated creation of IVL, interface, static routes and firewall policies by executing Fortinet CLI commands over SSH using Java. Designed logic to intelligently reuse or modify firewall rules during subsequent zone creations, reducing configuration duplication and ensuring policy consistency. Resulted in significant reduction of manual effort, accelerated zone provisioning, and enhanced configuration consistency.

### Tata Communications

Chennai

#### Software Developer Intern

01/2023 - 07/2023

- Optimized the capacity dashboard, enhancing virtual machine compute, and storage reporting.
- Implemented multithreading in Java and Python to optimize API performance.
- Developed an API for automated storage data retrieval and dynamic email templates using Thymeleaf.

## Certification

• AWS Certified Developer - Associate • Java - Basic HackerRank • Complete Python Bootcamp • Web Development Bootcamp

## Key Achievements

### Collaboration, Innovation and problem solving

Recognized for contributions to developing VM and storage workflows in OpenStack.

### Being Agile, Collaboration

Recognized for excellent contribution in supporting Customer deliverables.

### Collaboration

Appreciated for going beyond responsibilities in enhancing image management process.

## Skills

Technical Skills: Java, Spring Boot, Python, Angular, MySQL, RabbitMQ, Docker, Fortinet, Linux OS

Cloud Technologies: AWS Lambda, S3, RDS, CDN, Route 53, DynamoDB, CloudFormation, CI/CD, SNS, SQS, IAM, OpenStack, VCD, VMWare

## Education

### SASTRA University

Electronics and Communication Engineering(ECE) | CGPA: **8.91** / 10

06/2019 - 06/2023