

SWETHA PATURU

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EDUCATION

Northeastern University, Boston

May 2024 Expected

Master of Science in Computer Software Engineering

Relevant Courses: Networking & Cloud Computing, Agile Methodologies, Object Oriented Design

National Institute of Technology, Warangal

June 2017 – 2021

Bachelor of Technology, Electronics & Communication Engineering

WORK EXPERIENCE

Larsen & Toubro Infotech Ltd.

July 2021 – July 2022

Software Engineer - Cloud Native

Hyderabad, India

Skill testing platform development

- Developed grading service by refactoring a legacy monolithic application into a **Spring Boot microservice**, utilizing Spring Cloud and **RabbitMQ** for messaging, achieving a 30% efficiency improvement
- Authored unit and integration tests using JUnit and Spring Test, significantly enhancing code quality and achieving a total **test coverage of 90%**
- Successfully containerized the grading service using **Docker** and integrated with the existing Jenkins pipeline for deployment to Kubernetes on **OpenShift**
- Collaborated with multiple teams, in a **Scrum-based** setting, leveraging Jira contributing significantly to the modernization process and enhancing service delivery for around **15,000 users**

IBM Multicloud Management - Proof of Concept

- Integrated IBM MultiCloud Management with **AWS, GCP and IBM Cloud** achieving unified management
- Employed **Red Hat Advanced Cluster Management** for deploying hybrid cloud environments using **Helm charts** resulting in a 25% faster set up and improvement in cross-environment compatibility
- Managed three **Kubernetes clusters**, with two clusters on **Google Kubernetes Engine** and one hub cluster on **OpenShift**, enhancing infrastructure scalability leading to a 20% improvement in resource utilization
- Utilized **Terraform** for infrastructure provisioning and **Ansible** for automated configuration management, achieving a 35% increase in deployment speed and system consistency across cloud platform

ACADEMIC PROJECTS

DevOps & Cloud Infrastructure Orchestration | AWS, GitHub Actions, IaC

- Designed and implemented a custom AMI using Packer and shell scripting, optimizing application deployment of a RESTful application and integration of CloudWatch agent for logging and metrics collection
- Implemented GitHub Actions workflow for CI/CD including integration tests, artifact and AMI creation
- Deployed Pulumi with Python defining and provisioning network resources including Virtual Private Cloud, subnets, security groups, IAM roles, and EC2 instances
- Managed DNS updates using Route 53 and SSL certificate integration for secure application endpoints
- Integrated Amazon RDS for robust data management, supporting efficient and reliable operations of relational databases in the cloud infrastructure

University Hiring Portal | Java, SpringBoot, MySQL, Hibernate

- Engineered and implemented a SpringBoot-based university hiring portal, featuring an efficient and fully normalized SQL schema for optimal data integrity and system efficiency
- Ensured code integrity and reliability through comprehensive unit testing with JUnit and Mockito

Portfolio Website | React.js, Terraform, AWS S3, AWS Lambda

- Created a portfolio website with React.js, deployed on AWS S3 and secured with AWS CloudFront
- Automated serverless cloud infrastructure with Terraform, including a view counter feature utilizing AWS Lambda and DynamoDB, to dynamically display website visit counts

TECHNICAL SKILLS

Certifications:

Certified Kubernetes Application Developer – [Credential Link](#)

Languages & Frameworks:

C++, Java, Python, JavaScript, Spring Boot, Node.js, React, Express.js

DevOps:

Linux, Docker, Kubernetes, Terraform, Pulumi, GitHub Actions, Jenkins, Packer

Databases:

MySQL, Oracle, Microsoft SQL Server, MongoDB