Swachitha Amrutham
8172177235 | linkedin | amruthamswachitha@gmail.com

Professional Summary

- **5 years of** Experience **in DevOps and Software Development**, specializing in cloud-native architectures and automation-driven workflows.
- Developed scalable applications, implementing secure backend services and **APIs** using **Python, Java, and Node.js.**
- **Designed and optimized CI/CD pipelines**, ensuring continuous integration and deployment across agile development environments.
- **Built microservices architectures**, improving application scalability and enabling seamless service communication.
- **Implemented containerization strategies**, leveraging orchestration for high-availability deployments and efficient resource management.
- **Developed automation frameworks**, reducing manual workload and enhancing operational efficiency in software deployments
- **Streamlined cloud infrastructure**, enhancing performance and reliability in AWS and Azure environments.
- Applied **machine learning techniques**, integrating predictive analytics for improved operational insights and automation.
- Established logging and monitoring frameworks, improving incident response time and system performance analysis.
- **Led cross-functional collaborations**, driving security compliance, software optimization, and Agile development practices.
- **Developed front-end applications**, creating user-friendly interfaces with modern frameworks and structured UX methodologies.

TECHNICAL SKILLS

Languages	Python, Java, Bash/Shell, PowerShell
Operating Systems:	Ubantu, Linux, Windows, MacOS
CI/CD Tools:	Jenkins, GitLab CI/CD, Maven, Terraform, Ansible
Containerization Tools	Kubernetes, Docker, EKS, ECS
Cloud Platforms	AWS (EC2, EKS, ECS, VPC, Load Balancers, IAM, Lambda, CloudFormation), Azure (Virtual Machines, VNet, Load Balancer, Azure DevOps Pipelines, Key Vault, AKS)
Frontend Development	React, Angular, Bootstrap
Machine Learning & Analytics	MLflow, NLP-driven pipelines, Predictive analytics for healthcare data
Monitoring and Logging Tools:	Nagios, Splunk, Cloud Watch, Data dog, Prometheus, Grafana
Testing and ticketing tools:	SonarQube
Networking	DNS, DHCP, Cisco Routers/Switches, NIS, NFS, WAN, SMTP, LAN, FTP/TFTP, TCP/IP

WORK EXPERIENCE

Molina HealthCare | *Software Engineer—DEVOPS*   **Jan 2024 - Dec 2024**

- Built secure backend services and APIs in Node.js, Python, and Java for healthcare data management, implementing HIPAA-compliant systems for patient records, appointment scheduling, and laboratory results.
- Designed user-friendly frontend solutions using React and Angular that enhanced healthcare workflow management for appointments, prescriptions, and diagnostics, resulting in 20% faster task completion.
- Implemented Agile development practices with bi-weekly sprint cycles for healthcare feature delivery, achieving 30% faster development timelines through enhanced team coordination and CI/CD processes.
- Developed scalable microservices architecture using Spring Boot with RabbitMQ integration to enable real-time, asynchronous processing of healthcare data streams.
- Deployed and maintained these services in cloud environments, leveraging automated provisioning and configuration to ensure consistency across dev/test/production.

- Applied machine learning techniques to analyze historical patient and operational data, generating predictive insights (e.g., forecasting appointment no-shows) to improve resource planning and reduce wasted capacity.
- Built robust REST API architecture to securely manage patient information and facilitate EHR/EMR system integration, ensuring end-to-end data protection and regulatory compliance.
- Developed NLP-driven pipelines to extract structured information from unstructured clinical notes, enhancing data accessibility for downstream analytics and decision support.

Wipro | *Devops Engineer*   *May 2020-Aug 2023*

- Built and maintained CI/CD pipelines using **GitLab CI/CD** and **Maven**, enabling smoother integration and faster delivery cycles across diverse development teams.
- Automated infrastructure provisioning with **Terraform** and **AWS CloudFormation**, delivering reproducible environments and reducing manual setup time by 60%.
- Collaborated with ML teams to automate deployment of predictive models using **MLflow** and integrated model tracking within DevOps pipelines.
- Secured ML endpoints and workflows using **AWS IAM**, **Key Vaults**, and **TLS encryption**, ensuring data protection and regulatory compliance in production pipelines.
- Designed and deployed **microservices architecture** using Kubernetes, ensuring high availability, service discovery, and fault tolerance across distributed systems.
- Implemented configuration management via **Ansible**, scripting OS hardening, package installations, and environment consistency across Linux servers.
- optimized system uptime and performance using AWS EC2, Load Balancers, and VPC. Proficient in automating infrastructure tasks with PowerShell and Python in Agile development environments.
- Automated infrastructure provisioning with Terraform and AWS CloudFormation, resulting in a 50% decrease in manual errors.
- Built real-time analytics dashboards in **Grafana** to visualize model predictions, A/B test performance, and system latency across various user segments.
- Implemented cluster services using Docker and Kubernetes to manage local deployments in Kubernetes by building a **self-hosted** Kubernetes cluster using Terraform and Ansible and deploying application containers.
- Enabled end-to-end logging and monitoring through **Datadog** integration with EC2, Lambda, and RDS services, resulting in a 40% decrease in MTTR (mean time to resolution).
- Configured secure artifact management using **Nexus Repository** and implemented automated vulnerability scans using **SonarQube** and **Trivy** for Docker images.

DatafactZ | *cloud Engineer Intern*   *May 2019- Dec 2019*

- Designed and deployed scalable cloud infrastructure using Azure Virtual Machines, Azure VNet, and Azure Load Balancer to support enterprise applications.
- Integrated **Azure DevOps Pipelines** for continuous integration and deployment of .NET-based applications, streamlining build, test, and release workflows.
- Collaborated with cross-functional teams to enforce security best practices, including NSGs, RBAC, and Azure Key Vault usage for credential management.
- Collaborated with DevOps and data engineering teams to test **containerization strategies** using **Docker** and **Azure Kubernetes Service (AKS)** for microservice hosting.

ACADEMIC PROJECTS

E-commerce Price Tracker and Notifier | (*Python, Flask, SQLite, AWS SES***)**

- Developed a Python Flask application for automated price monitoring across multiple e-commerce platforms, capturing and organizing market data in SQLite database for trend analysis.
- Integrated AWS Simple Email Service (SES) to send real-time notifications to subscribed users, achieving a 98% delivery rate.
- Developed a streamlined user interface displaying price change analytics, highlighting proficiency in automation workflows and backend data management systems.

Online Examination System | (*Django, PostgreSQL, Bootstrap, AWS EC2***)**

- Designed administrative tools enabling streamlined exam creation, user role management, and comprehensive performance data analysis.
- Hosted the platform on Amazon EC2 with secure PostgreSQL data storage and end-to-end SSL/TLS encryption for data protection.
- Established exam security protocols using algorithmic question variation and real-time session tracking to ensure authentic student evaluations.

Real-Time Chat Application with Auto-Scaling | (*React, Node.js, Docker, Kubernetes*)

- Developed end-to-end chat platform with live messaging functionality powered by WebSocket protocol and Node.js server architecture.
- Implemented NGINX ingress routing and Helm package management to ensure standardized application deployments across development and staging environments.
- Built scalable container infrastructure with Docker and Kubernetes, enabling automatic workload distribution through horizontal pod scaling mechanisms.

Education

University of Illinois Springfield	**Springfield, IL, USA**
Master of Science in Management Information Systems	2023- 2024
Bharat Degree College for Women	**Hyderabad, TS, India**
Bachelor's in commerce (Computers**)**	2017 - 2020

Certification

AWS Certified Solutions Architect – Associate	**Valid till : 10 February 2028**