

Shardul Deshmukh

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EDUCATION

Northeastern University

Master of Science in Computer Software Engineering - Information Systems, GPA: 3.62

Boston, MA

Sep. 2022 – Dec 2024

Gandhi Institute of Technology and Management

Bachelors of Technology in Computer Science, GPA: 8.0

Hyderabad, IND

Jul. 2017 – Jun 2021

CERTIFICATIONS

Cloud: AWS Solutions Architect Associate, AWS Cloud Practitioner, Azure Fundamentals

Infrastructure as Code (IaC): Terraform Associate

EXPERIENCE

AWS Cloud Engineer

Jan. 2024 – Aug 2024

Alnylam Pharmaceuticals

Cambridge, MA

- Designed, implemented, and managed compute, storage and networking infrastructure on AWS Cloud across 36 AWS accounts utilizing the AWS Control Tower Architecture
- Created Terraform and CloudFormation scripts to automate cloud infrastructure provisioning, ensuring consistency, repeatability, and scalability of deployments through Infrastructure as Code(IaC) practices
- Integrated CI/CD pipelines using Jenkins, CodePipeline, improving Docker container deployment on Kubernetes by 70%
- Automated AWS resource & cost-center tagging, utilizing an event driven architecture using Python, AWS Lambda, Event Bus and Resource group tagging API, improving infrastructure visibility and ownership across 28 AWS accounts
- Implemented role based access control (RBAC) at AWS S3 prefix/folders level for Active Directory (AD) users, using S3 Access Grants/Access Control Lists (ACLs) streamlining access and integration for AD users and external tools
- Deployed a global content delivery network (CDN) on S3, AWS CloudFront, reducing latency and media rendering time

Associate Software Developer - AWS Cloud

Jun. 2021 – Aug 2022

Hexaware Technologies

Hyderabad, IND

- Developed & maintained a travel e-commerce web application using Node.js, Express.js, and AWS to serve over 9000 concurrent users
- Implemented blue-green deployments for EC2 using Auto Scaling groups and Load Balancers, ensuring 99.99% uptime
- Optimized REST APIs using caching mechanisms in javascript and Express, reducing average API response time by 60 milliseconds
- Leveraged IaC automation using Terraform and Ansible, automating resource provisioning to achieve 70% faster setup times
- Supported cross-functional teams(DevOps, Security, Development) and Business Stakeholders to align business specifications, operational needs with AWS infrastructure and troubleshoot production environments
- Devised Bash shell scripts to automate operational tasks, updates for Docker containers, AWS Lambda runtime, and Linux AMIs
- Established and managed S3 buckets with lifecycle policies for data archiving, leading to a 20% reduction in data storage costs.

Software Developer Intern

May. 2019 – Aug 2019

SignalX

Hyderabad, IND

- Established centralized application logging with StatsD, CloudWatch, S3 and AWS Lambda for API monitoring
- Reduced Mean Time to Detection (MTTD) to 15 min, automating log analysis for latency spikes and burst patterns, alerting via SNS
- Employed Spring Boot's data persistence capabilities to store customer reviews and provide insights for sentiment analysis with Spark

PROJECTS

E-Commerce DevOps Pipeline | NodeJS, Terraform, Packer, Github Actions, AWS

[\[Project Link\]](#)

- Developed RESTful API's using NodeJS and Express, deployed on EC2 instance and used RDS - MySQL as back-end database
- Used Terraform to implement Infrastructure as Code (IaC) automating all infrastructure provisioning including VPC, Subnets, Load balancers, EC2, IAM roles and policies, AWS RDS, S3 and Route53
- Orchestrated CI/CD, automating unit tests, Packer builds and deployments of custom Linux 2 AMI, on GitHub Actions
- Implemented centralized logs using CloudWatch and StatsD for performance monitoring, ensuring real-time system metrics visibility
- Configured Auto Scaling Groups for dynamic scaling based on traffic, integrating with Load Balancers to ensure high availability
- Deployed Nginx as reverse proxy and managed SSL/TLS certificates enabling secure HTTPS requests using AWS Certificate Manager

MicroServer - Complete DevOps Pipeline | Go, AWS, Kubernetes, Terraform, Kafka, Prometheus, Grafana

- Constructed a CVE data ingestion system with Kubernetes, Kafka, and PostgreSQL, ensuring message queuing and data persistence
- Created a Retrieval-Augmented Generation (RAG) pipeline with Elasticsearch and a self-hosted Gemma 2B LLM, enabling accurate, real-time responses to natural language queries about CVEs
- Managed 2 EKS clusters, integrating Istio service mesh for secure microservice communication, integrated Prometheus, Grafana, and Jaeger for system observability and performance monitoring

TECHNICAL SKILLS

Programming Languages: JavaScript, Typescript, Go, Java, Python, HTML/CSS, Bash

Frameworks/Web Development: React, Node.js, Next.js, Express, REST API, Redis, Prisma, Web Sockets, FastAPI, GraphQL, AJAX, jQuery, scrum, python flask, Tailwind CSS, Bootstrap, Vue.js, Angular

DevOps: Git, Kubernetes, Docker, Jenkins, Amazon Web Services, Google Cloud Platform, Ansible, Terraform, Github Actions, CI/CD

Databases: PostgreSQL, MySQL - TSQL, MongoDB, DynamoDB, CockroachDB

Testing: Unit, Integration, Automation, UFT, Selenium, Jest, Mocha