
EMPLOYMENT

Associate-Cloud Engineer**AQR Capital Management****May 2023 -Present**

- Designed and implemented **AWS infrastructure stacks** using **Python** and **CloudFormation**, streamlining deployment processes and enhancing operational efficiency.
- Automated **Event-Driven Cloud Native Architecture** using **AWS Step Functions**, revolutionizing cloud workflows and improving agility.
- Leveraged **Infrastructure as Code (IaC)** principles with **CloudFormation** and **Terraform** to provision and manage scalable, secure, and reliable cloud infrastructure.
- Developed and maintained **CI/CD pipelines** using tools like **Jenkins**, **Docker**, and **Helm** for seamless application deployment.
- Implemented **monitoring and logging solutions** using **CloudWatch** and **Sumologic** to ensure system reliability and performance.

Software Engineer**Cisco****Nov 2019 - May 2023**

- Championed AWS Step Functions, ensuring seamless data flow and on-time, budget-friendly project delivery. Boosted operational efficiency with lambda, Bash scripting and managed CI/CD pipelines using top-tier tools like docker, helm and terraform.
- Developed micro services to communicate with AWS IoT core, leveraging Python, Flask, IoT SDK, and boto3.
- Managed Kubernetes deployments and CI/CD pipelines using tools like Kubeadm, K3s, Ansible, Jenkins, and Terraform.

System Management Specialist**IBM****Dec 2016 - Oct 2019**

- Specialized in Kubernetes-based platform design, implementing highly available infrastructure with expertise in Kubernetes, Docker, Linux, Git, and more.
- Implemented production-ready Kubernetes infrastructure, managing YAML manifest files, and optimizing container performance with observability features like pod readiness probes, container logging, and monitoring.
- Provided operations and maintenance support for AWS resources.

EDUCATION

West Bengal, India**West Bengal University & Technology****2012 – 2016**

- Bachelor's Degree in Information Technology, CGPA: 7.8
- Coursework: Operating Systems; Databases; Algorithms; Programming Languages; Comp. Architecture; Engineering Entrepreneurship; Computer Networking;

TECHNICAL EXPERIENCE

Projects

- **Event-Driven Architecture:** Designed AWS Step Functions to automate processes for Event-Driven Cloud Native Architecture, enhancing agility and responsiveness.
- **AWS Automation Excellence:** Crafted cloud infrastructure solutions with AWS Automation, driving efficiency and reliability in the cloud.
- **Cisco Data Lake Project:** Collaborated on handling data ingestion from diverse sources including S3, APIs, Snowflake. Leveraged Golang, Python, Kubernetes, Docker, and Infrastructure as Code for efficient processing. Automated ingestion and processing tasks using ECS Fargate and Lambda, ensuring seamless data flow and publication on S3.
- **DevOps Automation Initiative:** Spearheaded end-to-end automation, infrastructure planning, and secure software development. Architected RESTful services with Python Flask, orchestrated microservices on Kubernetes using Docker images and helm charts. Engineered microservices for seamless communication with AWS IoT core and designed robust automation workflows for enhanced operational efficiency
- **Cisco CX-Collector Project:** Led the development of Cisco CX-Collector, a Python app enabling command execution on hosts from POD, upgraded microservices with nested helm charts, and implemented Ubuntu OS Screen for user input via LINUX GUI Programming. Managed CI/CD and resolved product defects.

Languages and Technologies

- **Languages:** Python, Golang, Bash
- **Cloud Platforms:** AWS
- **Containerization:** Kubernetes, Docker, Helm , ECS
- **CI/CD Tools:** Jenkins, CircleCI
- **Infrastructure as Code (IaC):** CloudFormation, Terraform , Ansible
- **Monitoring & Logging:** CloudWatch, Sumo Logic
- **Networking:** VPC, Subnets, Firewalls, Load Balancers, DNS
- **Version Control:** Git, GitHub, Bamboo
- **Soft Skills:** Problem-solving, Collaboration, Communication

Key Achievements

- Successfully automated **AWS infrastructure provisioning** using **IaC** and **Python** reducing deployment time by **40%**.
- Designed and implemented **Kubernetes-based microservices architecture** to **ECS Fargate** improving application scalability and reliability.
- Developed and maintained **CI/CD pipelines** using **Jenkins** and **Helm**, enabling faster and more efficient application deployments.
- Designed and implemented monitoring and cost analysis solutions using **CloudWatch**, **S3**, **Athena**, and **Kinesis** to track and calculate costs at the application, user, date, and team levels.
- Implemented **Generative AI** solutions using **AWS Bedrock**, providing stakeholders with a secure platform to utilize foundation and embedding models. Integrated **Retrieval-Augmented Generation (RAG)** architecture leveraging **S3** and **PostgreSQL Aurora Database** for enhanced model performance and data retrieval.