

HARSHITH SIDDARDHA MANNE

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SUMMARY

Cloud and DevOps-focused engineer with experience architecting scalable AWS infrastructures, automating deployments using Infrastructure as Code, and delivering production-ready containerized backend systems. Proven ability to improve deployment velocity, enhance system reliability, and optimize cloud costs through CI/CD automation and cloud-native design. Passionate about building secure, highly available architectures aligned with AWS Well-Architected best practices.

EXPERIENCE

DEEP ALGORITHMS & SOLUTIONS

May 2023 - May 2024

Associate Data Scientist

- Architected and deployed a secure, highly available 3-tier AWS infrastructure using Terraform and CloudFormation, reducing manual provisioning errors by 40% and decreasing environment setup time by 35% through Infrastructure as Code standardization.
- Containerized and deployed Python-Flask microservices on ECS Fargate using Docker and Nginx, enabling horizontal scalability and improving application response stability under load, supporting 2x traffic growth without performance degradation.
- Designed and implemented automated CI/CD pipelines using AWS CodePipeline and CodeCommit, reducing deployment failures by 30% and accelerating release cycles by 40% across development and staging environments.
- Optimized container builds and ECS task configurations to reduce deployment time by 45%, and implemented auto-scaling, high-availability RDS architectures that improved system scalability by 50% and minimized downtime during peak workloads.

Backflip Xenovous, Inc.

Jan 2023 - April 2023

Associate Software Developer Intern

- Contributed to the International Data Corporation (IDC) project, designing and developing scalable RESTful services using Java, Spring Boot, and Reactive Spring Boot, supporting high-concurrency workflows and improving API response efficiency by 30%.
- Built and integrated backend APIs with React and React Native applications, implementing Redux-based state management and navigation flows while ensuring seamless data exchange and reducing frontend-backend integration defects by 25%.
- Deployed and tested application builds in cloud-based environments, supporting AWS-hosted infrastructure, participating in performance tuning, debugging, and production issue resolution to improve application stability and reduce incident turnaround time by 35%.

PROJECTS

EPHEMERAL ENVIRONMENT AUTOMATION PLATFORM

- Designed and implemented an automated ephemeral environment platform that provisioned production-like AWS test environments per feature branch using Terraform and CloudFormation integrated with CI/CD pipelines.
- Deployed containerized Python-Flask applications on ECS and EKS with isolated VPCs, Kubernetes namespaces, and dedicated databases, improving deployment reliability and optimizing cloud cost efficiency through automated teardown.

TECHNICAL SKILLS

Programming & Scripting: Python, Java, JavaScript, Bash, SQL, HTML, CSS

Backend & APIs: Flask, FastAPI, RESTful APIs, Authentication & Authorization, Microservices Architecture

Cloud & DevOps: AWS (EC2, ECS, EKS, Lambda, S3, RDS, IAM, VPC, CloudWatch, CloudTrail), Terraform, CloudFormation, Docker, Nginx, CI/CD (AWS CodePipeline, Git-based workflows)

Databases: PostgreSQL, MySQL, MongoDB, RDS, Data Modeling, Query Optimization

Tools & Platforms: Git, GitHub, Linux, Postman, VS Code

EDUCATION

Arizona State University, Tempe, AZ | Master of Science, Information Technology | May 2026