Venkata Karthik Draksharam

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• https://venkatakarthik0211.github.io/docs/resume2_2.pdf

Summary

Generative AI Professional | Cloud Infrastructure Specialist | DevOps Engineer

A results-driven professional with over 2 years of experience in **AI/ML solutions** and **cloud infrastructure**. Proficient in developing and deploying AI/ML applications using **Langchain** and **LangGraph** and implementing multi-cloud infrastructure on **AWS** and **Azure**. Skilled in building CI/CD pipelines with Jenkins and automating scalable infrastructure designs.

Experience

DevOps/GenAI Engineer **Jun 2024 – PRESENT**
EPAM Systems, Inc.

- **Developed and deployed 15+ AI/ML solutions** using Langchain and LangGraph, achieving 92% accuracy improvement in NLP models and reducing processing time by 40% through optimized prompt engineering techniques
- Implemented multi-cloud infrastructure across 15+ environments on AWS and Azure, reducing **operational costs by 45%** and achieving **99.9% uptime** through Infrastructure as Code using Terraform and Kubernetes
- Built and maintained 10+ CI/CD pipelines with Jenkins, increasing **deployment frequency by 300%** and reducing **deployment failures by 85%** while achieving <2-minute average deployment times
- Creating interactive web applications using Streamlit and REST APIs for enhanced user experience
- Ensuring code quality and reliability through systematic unit testing and quality assurance processes
- **Led cross-functional teams of 5-7 members** in agile environments, delivering 95% of projects on-time and improving stakeholder satisfaction scores by 45% through structured communication protocols

Cyber Security – Red Team
Andhra Pradesh Technology Services (apts-lor.pdf) **Jan 2024 – Jun 2024**

- Engineered microservice-based automation tool for JavaScript reconnaissance, **scanning 500+ domains daily** and reducing manual reconnaissance time by 80%, while identifying **150+ security vulnerabilities across target environments**
- Implemented SAST workflows and container security measures following DevSecOps best practices, achieving **80% vulnerability reduction** in production deployments and improving security compliance scores by **65% across 25+ containerized applications**
- Conducted comprehensive VAPT assessments on **40+ enterprise web applications**, identifying and documenting **50+ critical vulnerabilities with 90% remediation rate**, reducing overall security risk exposure by 75% within 6-month cycles

Certifications

- AWS Certified Solutions Architect Associate (SAA-C03)
- AWS Certified AI/ML Practitioner & Cloud Practitioner
- Azure Certified Administrator Associate (AZ-104)
- Azure Certified AI Associate (AI-102)
- Azure Certified Fundamentals (AZ-900)
- Azure Certified Developer Associate (AZ-204)
- Multi-GPU CUDA C++ Applications
- Accelerated Computing with CUDA C/C++
- Accelerated Computing with Python

Skills & Interests

- **Technical Skills:** • Cloud & DevOps: AWS, Azure, Docker, Kubernetes, Ansible, ArgoCD, Jenkins, Git, Terraform, Vagrant • AI/ML & Development: Langchain, LangGraph, MCP, Python, Java, Go, Bash, HTML, CSS, MySQL, PHP • Security & Monitoring: VAPT, SAST, DAST, Zeek, ELK Stack, Kafka, Prometheus, Grafana • Systems & Platforms: Linux, Windows, VMware, Proxmox.
- **Soft Skills:** • Strong Communication, Self-Motivated, Problem-Solving, Team Collaboration.
- **Interests:** Specializing in DevOps practices and cloud-native solutions • Exploring Generative AI applications and LLM optimizations • Passionate about automation and scalable infrastructure design.

Projects & Hackathons

Orchestra AI Agentic Platform

- Integrated **MCP** Servers, and **Vectors** into a unified agentic workflow system.
- Built, containerized, and deployed custom MCP servers for scalable **GenAI tool** interoperability.
- Leveraged **AWS S3, EKS, and ELB** to automate infrastructure provisioning, scaling, and cross-environment orchestration.
- Implemented **vector-based retrieval and RAG pipelines** for knowledge augmentation and intelligent context retrieval
- Unified **CLI, backend, and frontend systems** into a production-grade **AI Orchestration Platform**, demonstrating expertise in **AWS, GenAI, and distributed systems**.

Dockerized JS File Reconnaissance

- Engineered automated JavaScript file reconnaissance tool using Docker and shell scripting
- Implemented regex-based source code extraction from active subdomains
- Streamlined security assessment processes through containerized deployment

DevSecOps Implementation

- Integrated container security scanning using Trivy and Clair in CI/CD pipeline
- Implemented automated SAST workflows with SonarQube and GitHub integration
- Enhanced application security through systematic vulnerability detection and remediation

Microservices & Service Mesh Architecture

- Deployed gRPC applications on AKS using Istio service mesh for enhanced traffic management
- Implemented GitOps practices using ArgoCD for automated deployment workflows
- Established robust CI/CD pipeline using Azure DevOps for continuous delivery

Security Monitoring Infrastructure

- Orchestrated Kubernetes clusters using Ansible and Terraform for automated deployment
- Implemented comprehensive logging solution using Zeek, Kafka, and ELK Stack
- Developed automated monitoring and alerting system for security incidents

Cryptographic Implementation

- Developed novel symmetric key encryption algorithm based on Rubik's Cube principles
- Implemented secure key generation mechanism using Java
- Enhanced traditional cryptographic methods with unique mathematical approach

Smart India Hackathon

- Led development of real-time visibility solutions for industrial operations
- Spearheaded Human Target Acquisition and Detection system implementation
- Managed cross-functional team delivering innovative safety-focused solutions

NVIDIA GPU Computing Codeathon

- Achieved 4th position nationwide in NVIDIA's GPU Computing competition
- Optimized complex algorithms using CUDA for parallel processing
- Collaborated in team environment to solve computational challenges

Education

Vellore Institute of Technology, Andhra Pradesh **2020 – 2024**

B. Tech in Computer Science and Engineering (CGPA: 8.67)