

LOKESH REDDY DUMPA

Software Development Engineer | DevOps Engineer | ML Ops Engineer
| lokeshdumpa95@gmail.com | +1 8138934462 | [LinkedIn](#) |

SUMMARY

Software Engineer with 2+ years of experience in backend development, scalable cloud-native applications and AI-powered solutions. Proficient in Python, Java, Data Structures & Algorithms, REST API development and cloud technologies. Hands-on experience in building and optimizing distributed systems, CI/CD pipelines and AI/ML integrated web applications

EDUCATION

Master of Science in Computer Science
University of South Florida, Tampa, FL

Aug 2023 - May 2025

SKILLS

Programming Languages: Python, Java, JavaScript, SQL, Shell Scripting, HTML, CSS, YAML

Software Engineering & Development: OOPs, Systems Design, Coding Standards, Design Patterns, SDLC, Agile, Code Reviews

Database & Storage Systems: PostgreSQL, MySQL, AWS RDS, NoSQL, Data Lakes

Cloud Platforms: AWS, Azure, GCP

Automation & CI/CD: Terraform, Docker, Kubernetes, Jenkins, Ansible, Git, GitLab CI/CD, Linux, Bash, Version Control

Security & Monitoring: IAM policies, CloudWatch, CloudTrail, SonarQube, Splunk, Logging & Alerting

Analytics & Data Tools: Power BI, Tableau, PySpark, Databricks, Pandas, NumPy, Parquet, Jupyter Notebooks

AI | ML | Data Science: LLMs, Machine Learning, Deep Learning, NLP, Scikit-learn, TensorFlow, Streamlit, Transformers

Collaboration Tools: JIRA, Confluence

EXPERIENCE

Software Engineer (DevOps + Backend Systems) | TCS, India

Feb 2022 - Aug 2023

- Developed and maintained backend systems using AWS services, Python, and REST APIs to deliver scalable solutions for enterprise users.
- Automated infrastructure and deployment pipelines with Terraform and GitLab CI/CD, reducing deployment time by 40%.
- Optimized existing backend code and SQL queries, reducing latency and increasing system reliability for mission-critical apps.
- Implemented monitoring and logging with CloudWatch and custom Python scripts to ensure high availability 99.7% uptime.
- Built automated health-check scripts and integrated them into CI/CD pipelines, reducing production incident response time by 50% and ensuring system reliability.
- Leveraged infrastructure-as-code tools such as Terraform (YAML syntax) and Kubernetes manifests to automate configuration and environment provisioning.
- Managed data workflows and scalable compute environments using AWS services like EC2, Lambda, and EMR.
- Integrated validation and automated test stages in CI/CD pipelines for backend services (familiar with test frameworks like Playwright or Postman for automated testing).
- Led cross-functional Agile teams, participating in design discussions and driving continuous delivery of backend features.

Software Engineer (AI + Web Development)

Aug 2021 – Jan 2022

- Designed and developed a disease-diagnosis web app on AWS EC2, integrating ML models for real-time health predictions via REST APIs.
- Developed Python-based frontend-backend pipeline and processed structured and unstructured data using formats like CSV, Parquet and integrated them in AI-driven analytics.
- Implemented secure cloud deployment and performance optimization practices in production environments.
- Mentored junior developers and maintained documentation using Confluence and JIRA for team collaboration.

PROJECTS

Pain Recognition using Deep Learning

Python | 2025

Engineered a deep learning model to detect pain in facial images using transfer learning (ResNet50) and advanced loss optimization (Focal Loss) to address extreme class imbalance.

Derma Fusion AI – Full Stack ML Application

Full-stack ML | 2025

Developed REST-based backend to serve AI models for skin cancer detection, integrating image and clinical data. Created frontend API interface and deployed full-stack application in the cloud with minimal latency and robust performance.

LLM-powered Toxicity Detection System

Python | 2024

Built and deployed an API-based service using fine-tuned RoBERTa model to classify toxic social media content with 97% accuracy. Engineered scalable data ingestion and processing pipelines, visualized insights through dashboards.

Multimodal Authentication System (Face and Voice)

Python | 2023

Developed a robust biometric authentication system integrating face and voice data, utilizing feature-level fusion and SVM to improve accuracy and fairness.

CERTIFICATIONS & RECOGNITIONS

- AWS Certified Solutions Architect Associate
- AWS Certified Associate Developer
- AWS Certified Cloud Practitioner
- Microsoft Certified: Azure Fundamentals
- TCS Recognitions: Rising Star, Key Contributor, Individual Best Contributor, Fresco Play award, Gems award