### Lokesh Bheemagani

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## **Professional Summary**

A versatile and results-driven Computer Science graduate (AI & ML) with a proven ability to design, develop, and deploy end-to-end software solutions. Combines strong foundations in software engineering with specialized skills in machine learning and cloud infrastructure automation. Experienced in building AI-powered applications, developing scalable AWS architectures using Infrastructure as Code, and implementing robust DevOps practices. A collaborative team player eager to tackle complex challenges in a fast-paced, innovative environment.

### **Technical Skills**

- Programming Languages: Python, JavaScript, SQL, Bash
- AI/ML & Data Science: Machine Learning, Scikit-learn, Pandas, NumPy, Model Training & Evaluation, Anomaly Detection, EDA, LLM APIs
- Cloud Platforms & DevOps: AWS (EC2, S3, RDS, VPC, IAM, CloudFront, Route 53), Terraform (IaC), Docker, Kubernetes, CI/CD (GitHub Actions, Jenkins), Prometheus, Linux Administration
- Web & Databases: React, HTML, CSS, MySQL, MongoDB
- Concepts & Methodologies: Microservices, Distributed Systems, Object-Oriented Programming (OOP), Data Structures & Algorithms, Agile Methodologies, Security-First Design

### **Project**

### Al-Driven DevOps Monitoring & Automation Agent | GitHub Repo

- Engineered an AI-powered solution for real-time system monitoring, applying machine learning (Scikit-learn) for anomaly detection to proactively reduce potential downtime.
- **Designed and implemented a full-stack application** by integrating with **Prometheus** for metrics collection and the **Slack API** for automated alerting and remediation workflows.
- Containerized the microservice using Docker for consistent deployment, demonstrating a DevOps mindset in bridging development and operations.

### Network Traffic Classification Engine using Machine Learning | GitHub Repo

- Developed and optimized ML models (SVM, Decision Trees, Naïve Bayes) to solve a complex data analysis problem, achieving over 90% accuracy in classifying network patterns.
- Implemented the full ML pipeline including data preprocessing, feature engineering, model training, and rigorous evaluation, showcasing strong software engineering practices in Al.
- Applied algorithms and data structures to efficiently handle and process large datasets, ensuring model performance and scalability.

## Secure & Automated 3-Tier AWS Infrastructure | Walkthrough

- Architected and deployed a highly available, secure cloud infrastructure for a web
  application using AWS (EC2, RDS, VPC, Auto Scaling) following best practices for resilience
  and security.
- Automated provisioning using Infrastructure as Code (Terraform), eliminating manual errors and ensuring consistent, repeatable environments across development and production.
- **Established a security-first foundation** by configuring IAM roles, security groups, and WAF, protecting the infrastructure from potential threats.

### SmartNutri – Full-Stack Nutrition Tracker Application | GitHub Repo

- Built a full-stack web application from the ground up using Python, JavaScript, HTML, and
   CSS, demonstrating proficiency in end-to-end software development.
- **Designed the database schema** and implemented backend logic for meal logging and user data analytics, applying **object-oriented programming** principles.
- Managed the project through iterative development, utilizing Git for version control and employing debugging skills to ensure a quality user experience.

#### **Education**

# B.Tech- Computer Science & Engineering (AI & ML)

Malla Reddy College of Engineering, Hyderabad *Nov 2021 – Jul 2025* | CGPA: 7.08

### Certifications

- Python Web Developer ICT Academy (Mar 2025)
- AWS VPC Infrastructure Provisioning Brainovision (Mar 2024)
- AWS Cloud Practitioner Essential AWS (Sep 2025)