KUKKALA KOMALA HARSHITHA

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SUMMARY

Computer Science graduate skilled in Machine Learning, Full-Stack Development, and AWS Cloud. Experienced in deploying ML models, building scalable web applications, and engineering production-level systems. Delivered strong results, including a 93.2% ML model accuracy and a real-time multiplayer application with sub-200ms sync latency.

EDUCATION

Bachelor of Technology (B.Tech) in Computer Science Engineering　　　　　　**Oct 2021 – Sep 2025**
*Vishnu Institute of Technology, | **CGPA:** 8.6*　　　　　　　　　　　　　　*Bhimavaram, Andhra Pradesh*

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, SQL.
Cloud / DevOps : AWS (EC2, S3, IAM, SageMaker, Redshift), Git, GitHub Actions, YAML
Frameworks / Libraries: React, Flutter, Streamlit, Pandas, Scikit-learn
Databases: Firebase Realtime Database, Snowflake, SQL, RDBMS and MongoDB

PROJECTS

Location-Based Alarm App - (Travel Alarm) | *Dart, Flutter, Platform Channels (Implicit)*　　**Sep – Nov 2025**
- Engineered a cross-platform (Android/iOS) Mobile Application using Flutter/Dart, focusing on Advanced Location Services and native system integration to serve as a reliable Travel Alarm.
- Developed core UI features allowing users to select a destination on the map via tap, visually setting a target for future Geofence tracking (location boundary monitoring).
- Initiated development of Background Location Services and Local Persistence, laying the critical foundation to ensure the alarm will reliably fire with a notification even when the app is closed.
- Orchestrated modular widget architecture within the Flutter application, enhancing code reusability by 30% and enabling faster feature onboarding for new application functionality and capabilities.

ML-Powered Crime Hotspots Mapping and Safety Insights | *Python, Scikit-learn, Streamlit*　　**Jan - May 2025**
- Implemented a Machine Learning pipeline to process and analyze 5,000+ crime records, integrating geospatial data and social media sentiment to predict high-risk urban zones.
- Executed Random Forest for classification and DBSCAN for hotspot clustering, achieving 93.2% prediction accuracy on a holdout test set.
- Deployed the model as an interactive web application using Streamlit, allowing users to visualize crime hotspots and severity on a real-time map.
- Authored a formal research paper on this project's methodology and findings, which the review committee for the Taylor & Francis selected

Project Trivia - Real-time Multiplayer Quiz Application | *React, Firebase, JavaScript*　　**Mar - Jun 2024**
- Architected a real-time multiplayer trivia game by leveraging Firebase Realtime Database to synchronize game state across all clients with an average latency of under 200ms.
- Designed a responsive user interface in React, leading to a 25% increase in average user session length compared to a previous version.

Weather Chatbot - API Optimization | *JavaScript, HTML/CSS*　　**May 2023**
- Built a weather chatbot that provides real-time weather data by integrating the OpenWeatherMap REST API.
- Imposed a client-side caching mechanism to store recent search results, reducing redundant API calls and decreasing average data retrieval time by 30%.

INTERNSHIP

AWS AI/ML Virtual Intern　　　　　　　　　　　　　　　　　　　**May 2023 – July 2023**
- Developed a Python script to automate the data cleaning and preprocessing pipeline for incoming datasets, reducing manual effort and task completion time by 20%.
- Engineered a text classification model using AWS SageMaker that achieved 85% accuracy in categorizing user feedback, providing actionable insights that improved the app's user interface.

CERTIFICATIONS

- Python: Certified in Python fundamentals, data structures, OOP principles, and writing clean, modular code.
- SQL: Certified in relational databases, query optimization, joins, indexing, and data retrieval using SQL.
- Full-Stack Development: Covered frontend (React), backend APIs, authentication, and deployment.