KUKKALA KOMALA HARSHITHA

+91 63022 84302 komalaharshitha72@gmail.com linkedin.com github.com

SUMMARY

High-achieving Computer Science student skilled in Machine Learning and Full-Stack development. Experienced in Cloud/DevOps, specifically leveraging AWS for model training and deployment, and proficient in SQL and Java. Delivered measurable results in all projects, including a crime mapping model with 93.2% accuracy.

EDUCATION

Vishnu Institute of Technology **Oct. 2021 – Sep 2025**

Bachelor of Science in Computer Science | ***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

PROJECTS

Location-Based Alarm App - (Travel Alaram) | *Dart, Flutter, Platform Channels (Implicit)* **Sep - Oct 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.
- Implemented 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* **March 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%.
- Trained and deployed a text classification model using AWS SageMaker to categorize user feedback, providing actionable insights from unstructured data.

CERTIFICATIONS

- Python: Validates core programming and logical thinking skills needed to build general applications, handle data structures, and automate tasks.
- SQL: Certifies proficiency in managing, querying, and analyzing data stored in databases using standard retrieval and manipulation commands.
- Full-Stack Development: Demonstrates the ability to build and deploy complete web applications from the visual user interface (front end) to the server logic and database (back end).