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KARTIKEY VISHWAKARMA



EDUCATION

BTech in Computer Science and Engineering VIT BHOPAL UNIVERSITY CGPA: 9.07/10 Oct 2022 - Present (With Specialization in Health Informatics)

CENTRAL HINDU BOYS SCHOOL (B.H.U VARANASI) PERCENTAGE: 81.4% July 2019 - Sep 2020

PROJECTS

- 1) NurtureWise Agro October 2024 NurtureWise-Agro
 - Developed the NurtureWise Agro application using Streamlit to provide AI-powered crop disease detection and economic impact analysis, enabling farmers to make data-driven decisions.
 - Implemented secure farmer registration and login functionality with SQLite, allowing users to manage profiles and track field data efficiently.
 - Integrated an AI inference model for real-time crop disease detection from uploaded images, offering actionable insights with high confidence levels.
 - Designed a dedicated module for calculating yield loss percentage, revenue loss, and post-loss income while linking users to resources for disease-specific management and fertilizer recommendations.

2) DeFi App (Bit Bank) June 2024 Bit Bank

Designed a decentralized finance (DeFi) application using Motoko on the Dfinity Internet Computer Protocol (ICP). Features:

- Real-time asset value updates.
- Straightforward withdrawal functionality.
- Seamless top-ups.

Domain: Blockchain

- 3) SMART-CAM SECURE: January 2024 SMART-CAM SECURE
 - Engineered geo-tagging for privately owned cameras.
 - Monitored and classified vehicle types and tracked vehicle counts.
 - Developed a feature for detecting camera blockage and camera displacement using multithreading.
 - Sent SMS alerts via Vonage API to camera owners and police during incidents.

Domain: Machine Learning, Computer Vision

HACKATHONS

- 1) RAJASTHAN POLICE HACKATHON: Participated as a finalist in the Rajasthan Police Hackathon 1.0, organized by the Rajasthan government.
 - Selected as one of 500 teams out of 9,000 for the 36-hour long finals.
 - Engineered a robust camera monitoring system using OpenCV that accurately detects camera blockages and displacements; enhanced operational efficiency by reducing downtime by 25% and increased data accuracy for surveillance by 15%
- 2) HACKOTHSAVA 2024: Shortlisted as a finalist in the national-level hackathon Hackothsava 2024 organized by SVITM.
 - Out of 500 teams, only 60 were shortlisted, and we were among them.
 - Developed a real-time accident detection model. The model receives input from a camera feed and sends alerts to authorities when an accident is detected.
 - It logs accident data into a database with attributes such as Camera ID, location, coordinates, average severity, accident count and day of the week.
 - The model provides data visualization, including correlation between different attributes, geospatial heatmaps, based on the stored data.
- 3) TENSORCRAFT: Participated in a hackathon hosted by the National Institute of Technology Trichy.
 - Progressed as one of 130 teams out of 400 to the finals.
 - Developed a smart DeFi-bot using Sophia smart contracts integrated with the æternity smart wallet.
 - Gained valuable blockchain knowledge and experience despite not qualifying for the final round.

SKILLS

C++, Motoko, JavaScript, Node.js, Mongo DB, React, Bootstrap, Google Cloud Platform, HTML, CSS, MATLAB LICENSE AND CERTIFICATION