INTEL AI HACKATHON

IDEATORS

Problem Statement

Open Ended Statement

Dynamic Traffic Dispersion Through Mobile Application

The conventional method of directing road traffic (static routing) struggles to accommodate fluctuations in variable traffic conditions effectively. This can result in subpar experiences for drivers and reduced traffic efficiency due to network slowdowns, alterations in road conditions, or accidents.

Team members	Email IDs	Institution Name
Aditya Krishna RS	adityasarathi2505@gmail.com	Sri Krishna College of Technology (SKCT), Coimbatore.
Thadeus Cruz Govindapillai	luthadcruz@gmail.com	
Abishek A	abishekarumugam2004@gmail.com	
Godreign Elgin Y	godreignelgin@gmail.com	

1. **Data Integration**: Gather reliable data from open-source maps and real-time sources like Google for traffic analysis.
2. **Route Optimization**: Utilize Dijkstra algorithm and machine learning for optimal route calculation considering road capacity constraints and historical traffic patterns.
3. **Real-Time Updates**: Integrate live traffic data for dynamic route adjustments and monitor road closures and accidents for immediate responses.
4. **Bottleneck Detection**: Implement algorithms and sensors to detect bottlenecks like parking encroachments and road conditions, analyzing traffic flow data for congestion areas.
5. **Alert Generation and Corrective Measures**: Develop an alert system for concerned authorities upon bottleneck detection, taking corrective actions promptly, and evaluating their effectiveness for continuous improvement.

Intel Toolkits Used:

1. One API Base Toolkit
    a. Data Analytics Library
2. AI Tools
    a. Tensorflow
    b. Scikit-learn