Traffic data analysis

Mission Statement: *To develop a cloud-based, AI-powered application that models and optimizes San Francisco’s traffic flow by predicting congestion on real road segments and dynamically regulating intersections using traffic light logic. The system aims to reduce urban congestion and enhance commuter efficiency through data-driven simulation, prediction, and control.*

Total process:

1. Data Acquisition & Environment Setup.
2. Graph Construction & Intersections
3. Traffic Congestion prediction (AI)
4. Traffic Light Control System
5. Real time integration
6. Dashboard & Visualization.
7. Final Polish & Documentation