READ ME

Traffic-Based Route Guidance System (TBRGS)

Requirements

Before running, ensure the following libraries are installed:

pip install [streamlit / folium / pandas / numpy /scikit-learn / tensorflow]

How to Run

1. Open an integrated terminal inside the ‘GUI’ folder.

2. Run the main script:

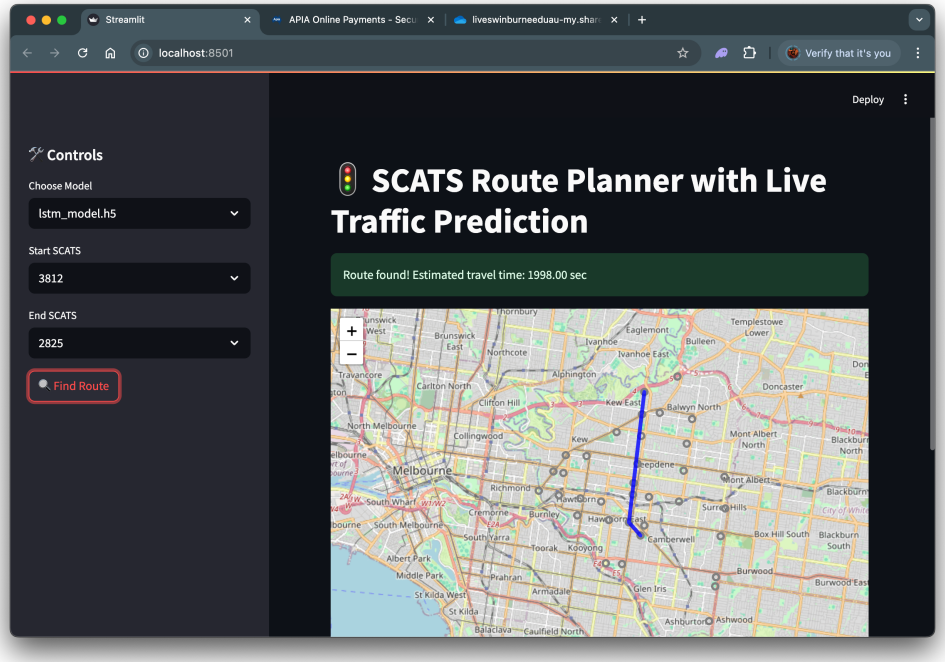
“streamlit run dynamic_route_gui.py”

```
nishenpallawala@Nishens-Air GUI % streamlit run dynamic_route_gui.py

  You can now view your Streamlit app in your browser.

  Local URL: http://localhost:8501
  Network URL: http://10.0.0.69:8501
```

3. A browser window will automatically open, displaying the GUI.



Using the Interface

- Choose Model: Select one of the available trained models
- Start SCATS: Choose the starting intersection node.
- End SCATS: Choose the destination node.
- Find Route: Click to run the route finder. The path will be visualized on the map.
- Estimated travel time is displayed above the map.

Notes:

- The interface includes a minor coordinate offset to align SCATS nodes visually with roads.
- The routing may return "No path" if the selected nodes are not directly connected in the graph.
- Predictions are based on October 2006 SCATS data.