Project Info

Team Name: 2 Stars 1 Orbit

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Project Description:

Satellite Tracker is a web-based dashboard that lets users visualize the real time positions of Canadian satellites in orbit. It updates in real time and allows users to calculate when the featured satellites might be passing over a major Canadian city. Plus, to promote inclusiveness, we also have an inbuilt toggle to allow users to translate the content on the webpage into French.

Project Architecture:

canadian-satellite-tracker/

├── public/ # Static assets (favicons, images, etc.)

├── src/ # React frontend source code

│ ├── components/ # UI components (Map.jsx, Sidebar.jsx, StatsBar.jsx, etc.)

│ ├── data/ # satellites.js (Canadian satellites, cities), translations.js

│ ├── styles/ # CSS stylesheets

│ ├── utils/ # tleUtils.js (propagation & fetching), dateUtils.js

├── server.mjs # Node.js backend API proxy to Space-Track

├── SLTrack.py # Python script, TLE fetcher for advanced usage

├── SLTrack.ini # Python backend config

├── package.json # NPM dependencies & scripts

├── vite.config.js # Vite build configuration

├── README.md # Project documentation (this file)

The repository also contains sample datasets used from Space-Track in both JSON and CSV format. The CSV file can be generated by running the SLTrack.py backend using your Space-Track credentials.