Conflict Simulator Dashboard

This project idea is for building an **AI-powered Conflict Simulator Dashboard**. The goal is to model how sanctions, alliances, or conflicts affect international trade, global economy, and energy supplies. Users can test hypothetical scenarios such as **“What if Country X bans oil exports?”** and observe ripple effects across countries.

Key Features

1. **Scenario Simulation:** Model sanctions, alliances, and conflicts with adjustable parameters.

2. **Trade Network Visualization:** Interactive map showing global trade flows (oil, gas, food, rare earths).

3. **Ripple Effect Analysis:** Simulate how supply disruptions affect global prices and national GDP.

4. **Alliance Dynamics:** Show how alliances reroute supply or mitigate impacts.

5. **Real-Time Data Integration:** Use real datasets (energy exports, trade volumes, GDP) for realism.

6. **Dashboard UI:** Provide sliders, dropdowns, and charts for scenario exploration.

Example Scenario

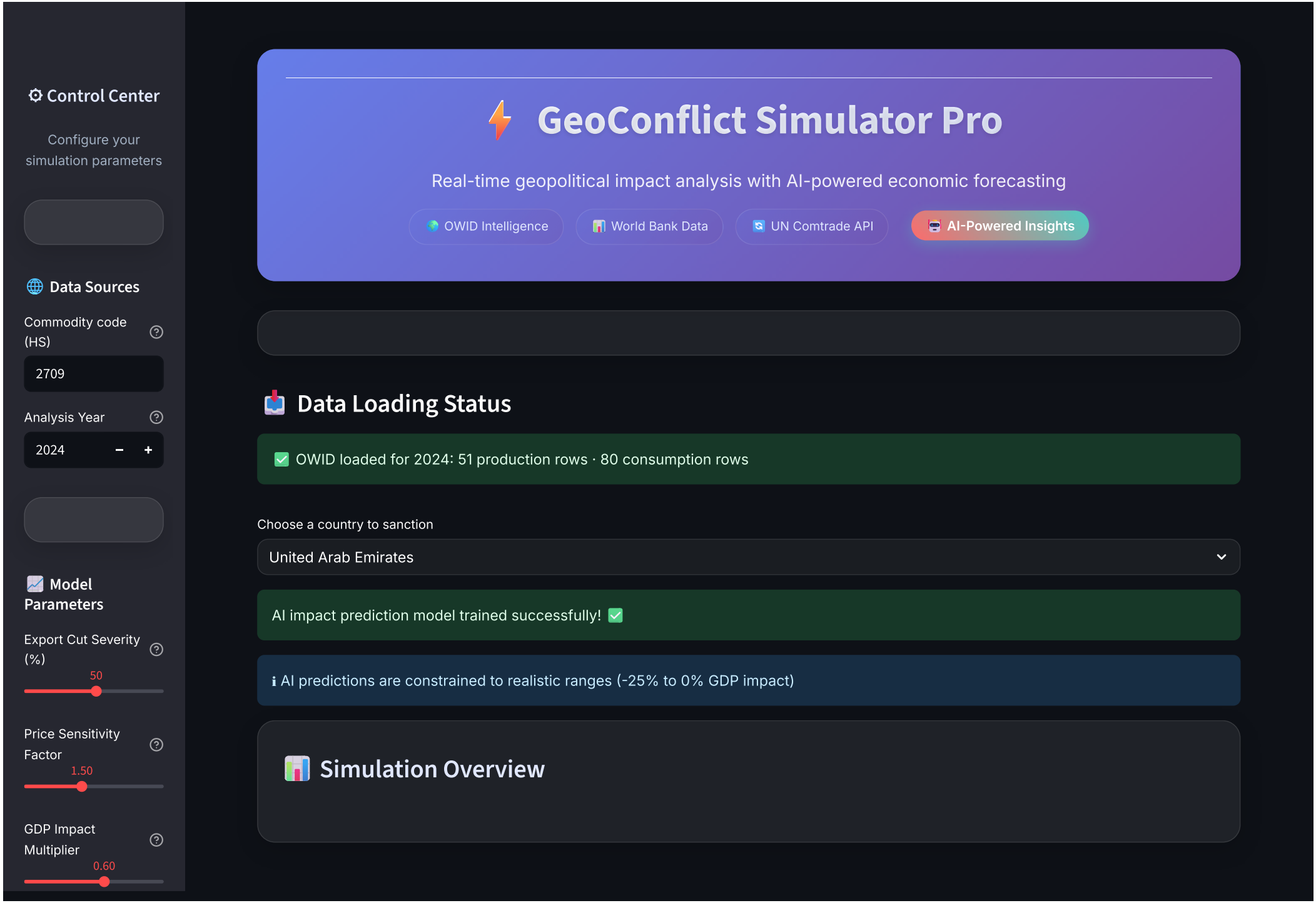
Suppose **Caspia**, a major oil exporter, faces a full export ban. The dashboard would calculate: - Lost oil supply in million barrels. - Global oil price increase (e.g., +56%). - Country-wise GDP impact due to higher energy costs. - Visualization: bar charts for GDP change, maps showing affected regions, and oil price trajectory.

Proposed Tech Stack

Component	Technology
Frontend / Dashboard	Streamlit or React + D3.js/Plotly
Backend / Simulation	Python (NumPy, Pandas, NetworkX)
AI / Forecasting	Scikit-learn, PyTorch or TensorFlow
Visualization	Matplotlib, Plotly, Mapbox
Data Sources	World Bank, IEA, UN Comtrade, IMF

Hackathon Pitch

The Conflict Simulator Dashboard is a unique project idea that blends **geopolitics**, **AI forecasting**, and **interactive visualization**. It is highly relevant in the current global context of energy crises, trade wars, and sanctions. The project is both technically exciting and socially impactful, making it ideal for a hackathon showcase.

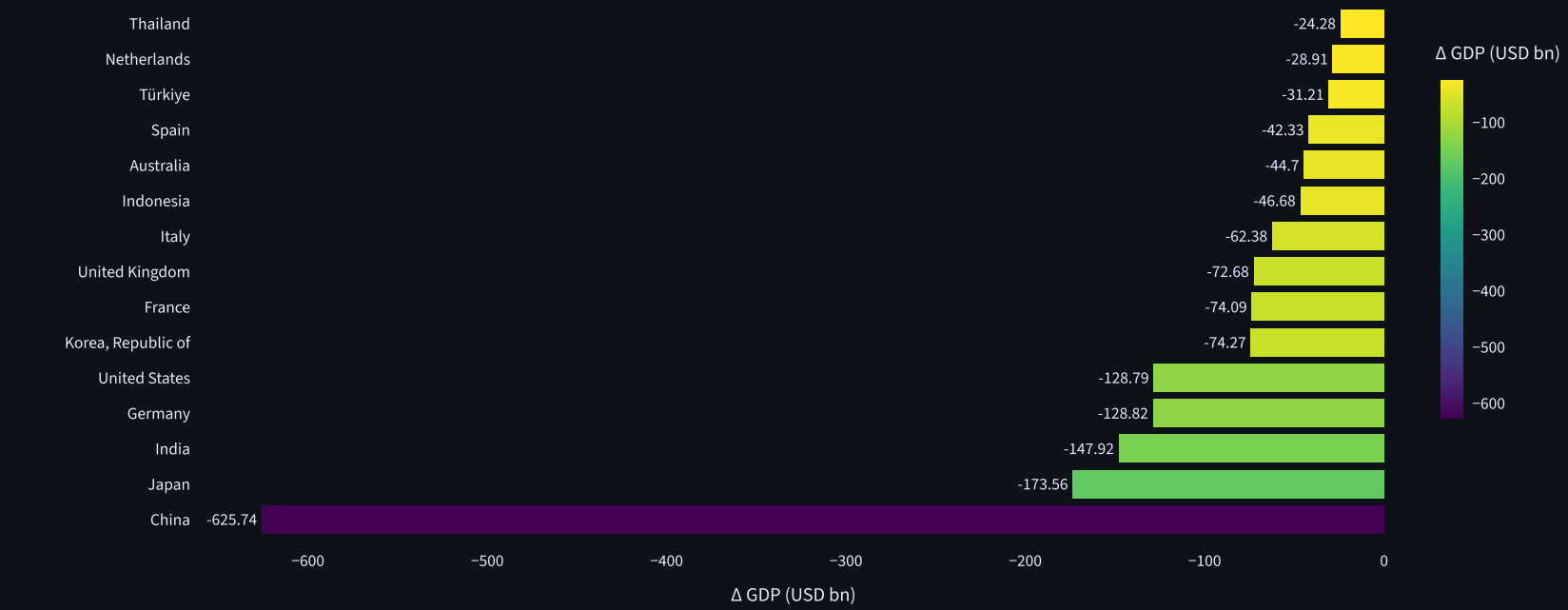

Control Center
Configure your simulation parameters
Data Sources
Commodity code (HS)
2709
Analysis Year
2024
Model Parameters
Export Cut Severity (%)
50
Price Sensitivity Factor
1.50
GDP Impact Multiplier
0.60
GeoConflict Simulator Pro
Real-time geopolitical impact analysis with AI-powered economic forecasting
OWID Intelligence
World Bank Data
UN Comtrade API
AI-Powered Insights
Data Loading Status
OWID loaded for 2024: 51 production rows · 80 consumption rows
Choose a country to sanction
United Arab Emirates
AI impact prediction model trained successfully!
AI predictions are constrained to realistic ranges (-25% to 0% GDP impact)
Simulation Overview

Target Exporter	Export Reduction	Baseline Price	New Price
United Arab Emirates	50%	$70	$70.7
ARE	1,454 kb/d affected	Reference point	+1.0% change

Global Overview | Impact Analysis | Data Explorer | AI Insights

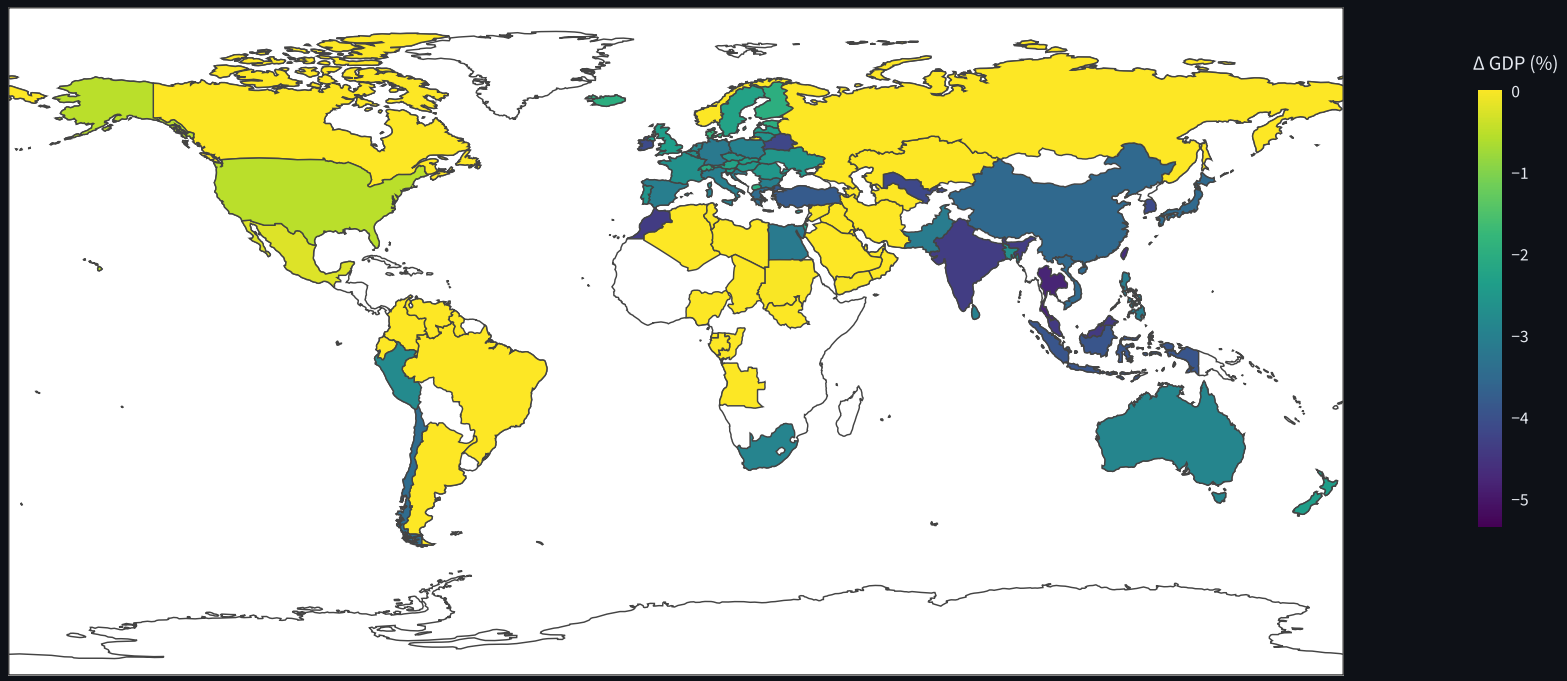
Top Economic Impacts

AI-Predicted GDP Impact (USD billions)



🗺️ World Impact Map

🌍 **AI-Predicted GDP Impact (% of GDP)**



🚀 Powered by Advanced Economic Modeling

Real-time analysis • AI-powered insights • Global economic intelligence