



# Smart Supply Chain Predictor

FALCON HACKATHON – AUGUST 2024

# The Problem

- ▶ Supply chain disruptions cost businesses billions annually
- ▶ Traditional prediction methods struggle with complex, rapidly changing global factors
- ▶ Need for real-time, intelligent risk assessment

# Our Solution

- ▶ Smart Supply Chain Predictor: AI-powered risk assessment and prediction
- ▶ Combines historical data analysis with real-time news interpretation
- ▶ Leverages advanced LLM (Falcon) for nuanced understanding of global events

# Key Features

- ▶ Real-time risk prediction
- ▶ Integration of structured (historical) and unstructured (news) data
- ▶ Actionable recommendations for risk mitigation
- ▶ User-friendly dashboard for easy interpretation

# Technical Architecture

- ▶ Data Ingestion: Historical + News Data
- ▶ Processing: Data Cleaning and Feature Extraction
- ▶ AI Analysis: Falcon LLM + Custom Algorithms
- ▶ Prediction Engine
- ▶ Interactive Dashboard



# Innovative Use of LLM

- ▶ Falcon LLM for natural language understanding of news and events
- ▶ Extraction of relevant supply chain risks from complex text
- ▶ Generation of context-aware risk assessments and recommendations

# Impact and Benefits

- ▶ Proactive risk management
- ▶ Potential cost savings and improved reliability
- ▶ Enhanced decision-making for supply chain managers
- ▶ Adaptability to various industries and supply chain types

# Future Enhancements

- ▶ Integration with real-time IoT data
- ▶ Expansion to more data sources (social media, economic indicators)
- ▶ Advanced what-if scenario modeling
- ▶ Mobile app for on-the-go risk monitoring