Three machine learning and deep learning concepts with great real-world applications + Bonus Ideas

- Dynamic Pricing Optimization using Machine Learning

Description: Create a machine learning system that uses real-time market information, customer trends, and product demand analysis to optimise pricing strategies for e-commerce platforms, dynamically altering prices to maximise profit.

Input/Output: Previous results, Forecasting Techniques, Consumer behaviour

Use Case: This technology can be used by e-commerce platforms to automatically adjust prices in real-time based on factors including competition pricing, consumer preferences, and market trends, boosting sales and profitability.

- Autonomous Drones for Object Tracking and Navigation

Description: Create an autonomous drone system that employs deep learning algorithms to track and navigate objects in real time. The system must be able to recognize and track items or people, adapt to shifting environments, and safely negotiate hazards. Deep reinforcement learning, object detection, and computer vision techniques can all be used to accomplish this.

Input/Output: This can be achieved through computer vision techniques, object detection, and deep reinforcement learning.

Real-Time Use Case: Using this technology, drones can track and follow specific objects or people in real time during operations like aerial surveillance, package delivery, and search and rescue missions.

- ## Sentiment Analysis for Social Media Crisis Management:

Description - Develop a deep learning model that can analyse and categorize social media posts in real time during an emergency or crisis. Sentiment Analysis for Social Media Crisis Management. The algorithm would be able to recognize posts that expressed concern, urgency, or requests for assistance, enabling prompt response and support.

Input/output: Image recognition, gestures analysis, flow of data,

Use case - Social media platforms are frequently inundated with real-time information during natural catastrophes, terrorist attacks, or public safety problems. This concept might make it easier for emergency responders and organizations to recognize urgent situations, allocate resources wisely, and aid individuals in need.

- ## Intelligent Video Summarization for Surveillance

Description: Create a system that employs deep learning methods to analyse security camera feeds in real-time and produce succinct summaries of activities or events.

Input/output: Image recognition, Behavioural Sentiment analysis, busy route,

Use Case: By using the intelligent video summarising system, security officers may swiftly study and comprehend hours of surveillance film, saving time and enhancing situational awareness.

BY-

ASHISH SAROCH

Sarochashish98@gmail.com

Asaroch_mba22@thapar.edu