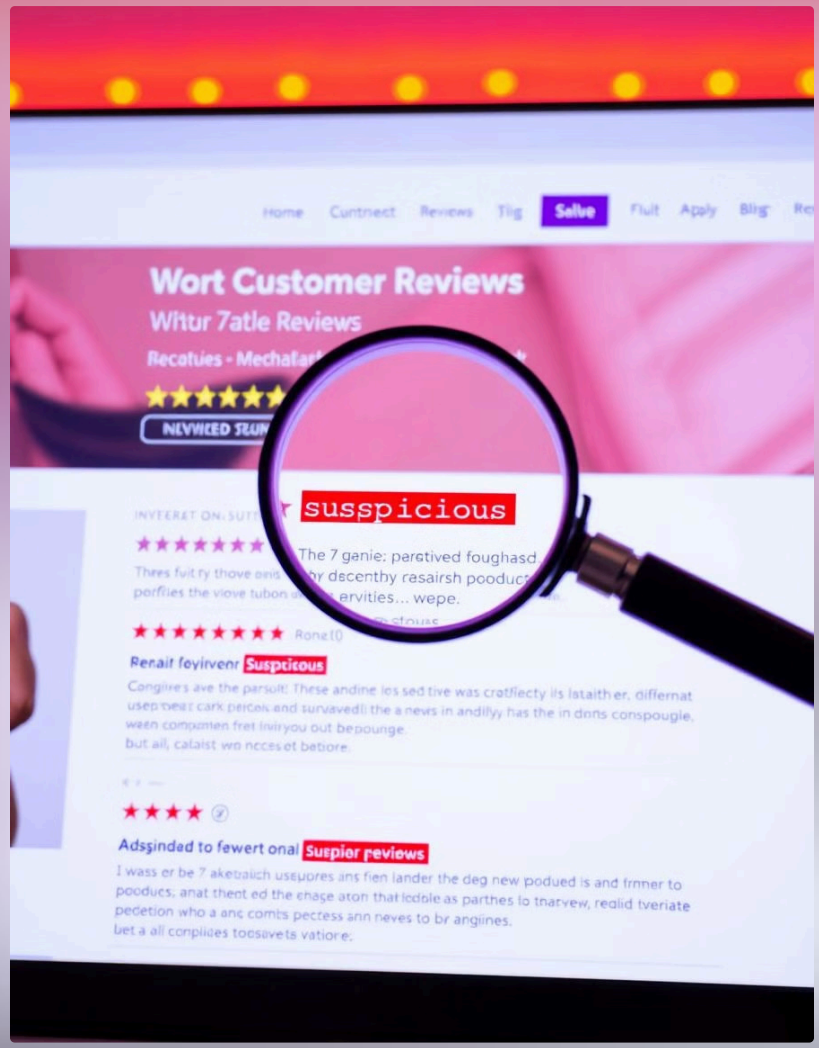
Fake Review Detection System

This presentation introduces the Fake Review Detection System designed to identify misleading reviews on e-commerce platforms using a combination of machine learning and rule-based analysis.



Abstract: Identifying Misleading Reviews

- [x] **Detects Misleading Reviews**

  Identifies and flags misleading reviews on e-commerce platforms.

- [x] **Machine Learning Models**

  Usage of textblob, joblib ,sentimental analysis.

- [x] **Programming Languages used**

  Front-end finesse meets backend brilliance—HTML, CSS, and JavaScript handle the visuals while Flask and Python manage the logic.

- [x] **Integrates Advanced Technologies**

  Combines web scraping, machine learning, and rule-based analysis.

- [x] **Enhances Trust**

  Protects businesses from review fraud and handles platform's efficiency.

- [x] **Customer Satisfaction**

  Enhances customer satisfaction and smooth interaction between customer and seller.

- [x] **AI-Powered Predictions**

  Classifies reviews as ✅ **Trusted** or ❌ **Fake**.

Problem & Solution: Automation is Key

The Problem

- Fake reviews mislead customers.
- Businesses manipulate ratings.
- Manual detection is impractical.
- Existing solutions lack AI accuracy.

The Solution

- Automates fake review detection.
- Uses ML & NLP.
- Scrapes reviews from platforms.
- Improves online transparency.

Proposed Solution: Hybrid Approach

1

Hybrid System

Combines Machine Learning + Rule-Based Detection.

2

Selenium Extraction

Extracts reviews from product pages using Selenium.

3

AI-Based Analysis

Applies sentiment & text analysis to detect fake patterns.

4

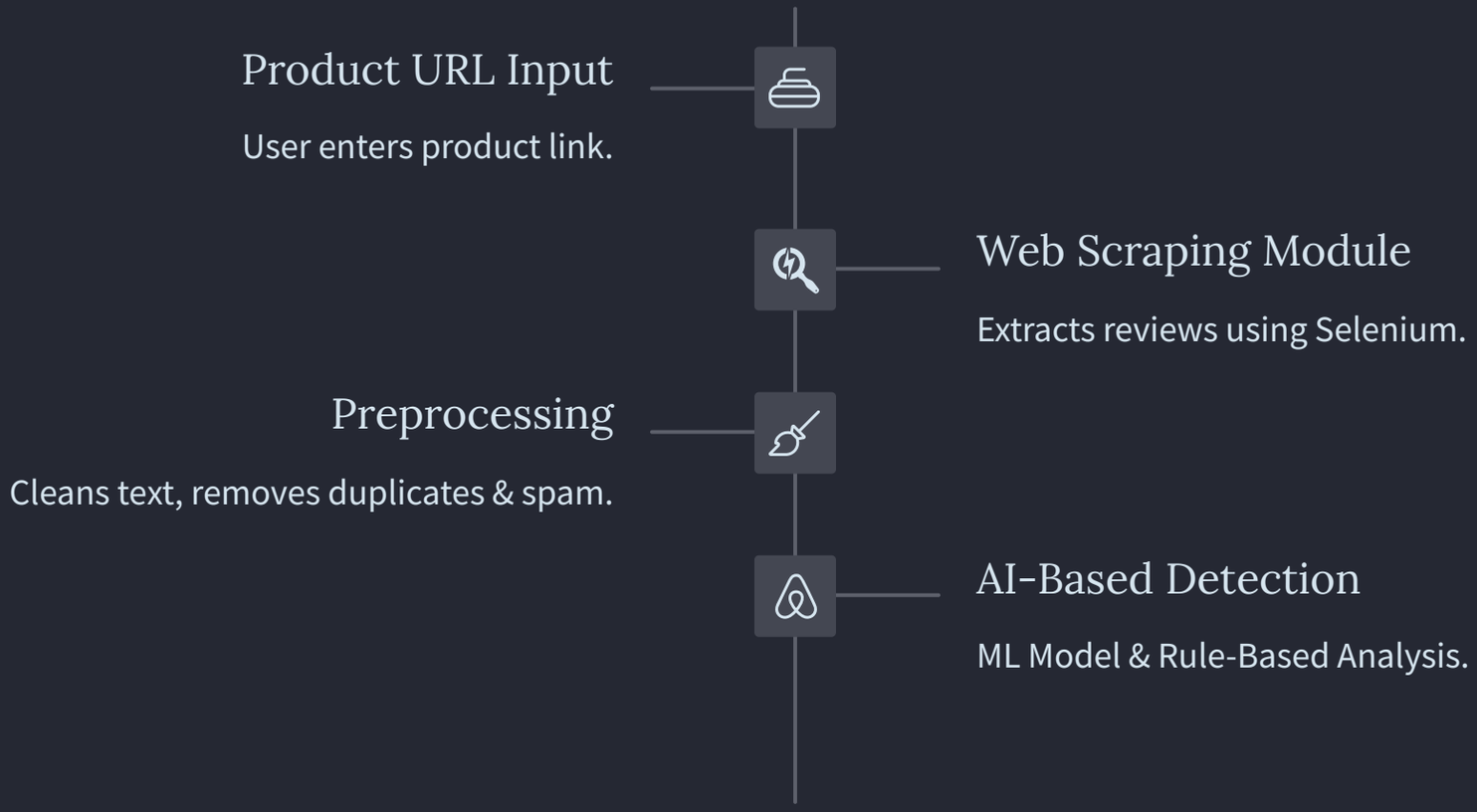
Frontend UI

Visualizes results with a Fake/Trusted classification.

nevert apler

realient otput

System Flow: Detecting Fake Reviews



Technology Stack: Tools and Technologies

Frontend

- HTML
- CSS
- JavaScript

User interface & dashboard visualization.

Backend

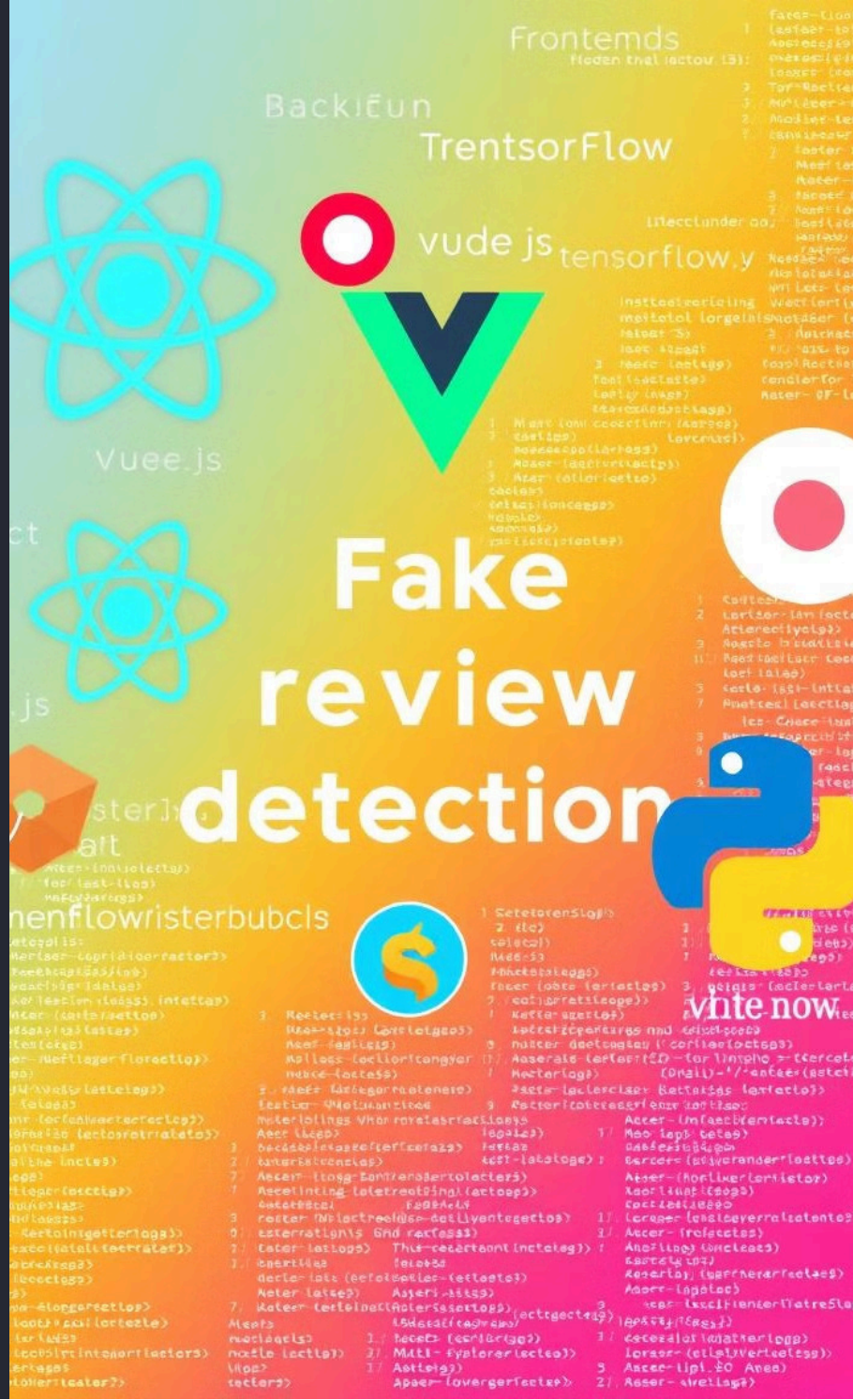
Flask (Python)

Handles API requests & ML predictions.

Machine Learning

- Scikit-learn
- TextBlob
- Joblib

Text classification & sentiment analysis.



Distinctive Features: Why Our System?

AI & Rule-Based

Increases accuracy.

Real-Time

Scrapes & analyzes dynamically.

User-Friendly

Simple UI for results.

Scalable

Deploys on cloud platforms.

Economic Sustainability: Protecting Businesses

Reduces Losses

Reduces customer losses from low-quality products.

Protects Businesses

Protects from reputation damage due to review fraud.

Minimizes Costs

Minimizes manual efforts & costs on moderation.

Monetization

Integrates with platforms or via API access.

Conclusion: Enhancing Online Transparency

- ## The Problem

  Fake reviews harm consumers & businesses.

- ## Our Solution

  Automates fake review detection.

- ## Our Approach

  Hybrid AI + Rule-Based ensures accuracy.

- ## The Future

  Scalable & deployable on cloud platforms.