

# Abstract

## Problem Statement

E-commerce websites often employ deceptive user interface (UI) strategies, commonly known as dark patterns, to influence user behaviour in ways that may not be in the user's best interest.

E-commerce platforms sometimes employ strategies to present products at a seemingly lower price, only to reveal hidden costs during the checkout process.

Fabricating positive reviews to artificially enhance product ratings and create a false sense of popularity, influencing potential buyers in a misleading manner.

Providing inaccurate or incomplete product information to make items appear more appealing than they truly are, potentially leading to customer dissatisfaction.

Some websites use fake countdowns and urgent messages to pressure you into buying quickly.

When browsing certain websites, it's common to encounter a practice where important information is deliberately presented in a smaller font.

## Key Features

Our Chrome extension goes beyond conventional review filtering, employing a multi-faceted approach to distinguish genuine feedback from deceptive AI-generated content.

Filter reviews and eliminate AI-generated content. Submit filtered reviews to the Machine Learning Model, extracting details mentioned on the website. Assign a comprehensive score to each detail, gauging its genuineness and effectively eliminating misleading information.

Enable the extension and seamlessly track your journey from the product page to checkout. Uncover hidden costs on the checkout page, providing users with transparency and avoiding unexpected charges.

Highlights elements of fake urgency on the product page using keyword analysis. Match and analyse text from the website to expose deceptive tactics, ensuring users make informed decisions.

On the product page, scrutinise details and mentions to highlight potential dark patterns. Ensure that critical information receives user attention, eliminating deceptive tactics that may go unnoticed.

### **Feasibility**

Seamlessly integrates with browsers for a hassle-free user experience, requiring no intricate setup or technical expertise.

Provides instant, on-the-fly analysis, empowering users to detect deceptive practices in real-time during their online shopping journey.

Boasts an intuitive and user-friendly interface, ensuring accessibility and ease of use for a wide range of online shoppers.

Offers regular updates and reliable support to adapt to evolving online trends, ensuring users consistently benefit from the latest features and security enhancements.

### **Scalability**

Design a scalable architecture that accommodates increased user traffic and evolving functionalities as the user base expands.

Leverage cloud services to ensure scalability, allowing our solution to effortlessly handle growing data volumes and user demands.

Utilise user feedback for continuous improvements, iterating and enhancing the solution to meet evolving user needs and market demands.

Partnering with e-commerce platforms streamlines dark pattern detection, minimising resources and fostering beneficial relationships with stakeholders.

## **Social Impact**

Empower consumers with the ability to make informed choices, fostering a marketplace where transparent and fair practices are encouraged.

Contribute to a more honest and trustworthy online retail ecosystem by actively combating deceptive practices, creating a ripple effect for ethical conduct.

Strengthen trust between online retailers and consumers, encouraging a positive environment where businesses prioritise transparency and user satisfaction.

Undertake initiatives to educate users about online deception and dark patterns, promoting digital literacy and awareness.

## **Team Details**

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