ABSTRACT

TEAM 7.5

Developing an AI-based identity verification system that effectively analyzes and authenticates users' online behavior patterns.

Abstract:

In an era of increasing digitalization, ensuring secure online interactions has become paramount. Traditional methods of user identity verification, relying on passwords and two-factor authentication, often fall short in the face of evolving cyber threats. This project introduces an innovative approach to enhance online security by leveraging artificial intelligence (AI) to verify user identities based on their unique online behavior patterns.

Our proposed system utilizes advanced machine learning algorithms to analyze a user's digital footprint, encompassing various aspects of their online behavior such as typing speed, mouse movements, browsing habits, and device interaction patterns. By establishing a comprehensive profile of these behavioral patterns, our AI model creates a distinct user identity fingerprint.

The primary goal of this system is to add an extra layer of security by authenticating users based on their consistent behavioral patterns, making it significantly more challenging for malicious actors to impersonate legitimate users. Moreover, our AI-driven approach adapts and evolves alongside users, ensuring continued accuracy and security over time.

This project addresses the critical need for improved user identity verification in both personal and enterprise-level online environments. By harnessing the power of AI and machine learning, our system not only enhances security but also simplifies the user authentication process, ultimately providing a seamless and secure online experience for individuals and organizations alike.