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Using Artificial Intelligence to Prevent Banking Frauds

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Abstract: Banks have been providing a better way for people to save and deposit money. With the advent of banks, payment and deposit methods became far more convenient than they were previously, but thefts continued to plague banks, causing millions of dollars in damage. These thefts have harmed the lives of thousands of businesses all over the world. Theft is increasing at a rapid pace as technology advances, but technological concepts such as artificial intelligence and machine learning have assisted businesses and individuals in dealing with these issues. Companies are using artificial intelligence to track down these thefts, from proper customer authentication to multiple level security checks. AI is proving to be a better way to combat these thefts. In this article, we discussed the most common types of theft and how to prevent them using artificial intelligence.

Keywords: Artificial intelligence, machine learning, identity, authentication, phishing

I. INTRODUCTION

With the introduction of banks came the problem of theft and fraud. Banks and money deposits have simplified many things for people; they can now safely and securely deposit their money in a bank. These banks have contributed to the revolutionization of the money and payment systems. Whether it's the Visa system or India's UPI system, they all contributed to making the banking system simple and efficient. Net banking is also a part of banking that plays an important role in making it easier than going to the bank physically. Despite having a plethora of features and benefits, there was always the issue of theft, fraud, deception, and so on. Bank officials make every effort to mitigate these issues and protect the individuals' time and money. A Fintech company whose CEO, 'Sheng-Wen Cheng,' pled guilty to multiple fraud schemes, including \$7 million COVID-19 pandemic fraud and securities fraud, is one example. These types of frauds and thefts became a stumbling block in the way of banking companies' great success. Identity theft and phishing fraud are the two most common types of theft. Fortunately, technological concepts such as artificial intelligence aided in dealing with them, and thousands of banking institutions are now using artificial intelligence to reduce the likelihood of theft.

II. IDENTITY THEFT SOLVED BY ARTIFICIAL INTELLIGENCE

Identity theft occurs when scammers use our sensitive information such as IDs, PANs, e-mail addresses, accounts, and Aadhar cards for fraudulent purposes. Identity theft is a crime in which an attacker uses deception or fraud to obtain personal or sensitive information from a victim and then uses that information to act in the victim's name. Typically, perpetrators of such crimes are motivated by personal financial gain. One such case was the Dhani app case, in which identity theft affected thousands of people. Fortunately, artificial intelligence has aided in the development of a solution; AI and its subset machine learning are developing a completely new concept of identity authentication. They established parameters for identity authentication. Some authentication examples like Validation of special paper and ink, comparison of OCR and barcodes and magnetic strips, data validity tests, and biometrics or facial recognition to link the individual to the ID credential are some of the tests performed. Thus, machine learning aided in making identity authentication simple, reducing the likelihood of identity theft fraud.

III. PHISHING FRAUD SOLVED BY ARTIFICIAL INTELLIGENCE

Phishing fraud is a type of fraud in which an attacker uses email or other forms of communication to pose as a legitimate entity or person. Phishing is a fraudulent activity that is used to obtain sensitive user information such as credit card numbers, login credentials, and passwords. It is usually accomplished by using email or other forms of electronic communication while pretending to be from a reliable business entity. Phishing fraud causes significant harm to both users and businesses. Crelan Bank in Belgium was one such example of Phishing fraud. They lost nearly \$75.8 million as a result of this fraud. This fraud was committed by compromising a high-level executive's account in order to transfer funds in the account controlled by the attacker. Fortunately, artificial intelligence and machine learning have our back when it comes to dealing with this type of fraud.

Essentially, it examines metadata, content, context, and typical user behaviour using data analysis and machine learning. This allows it to identify potential threats and anomalies in emails quickly and accurately. Artificial intelligence and machine learning are assisting thousands of businesses worldwide with their money and data.

IV. CONCLUSION

Banks have transformed human life in numerous ways by providing a safe and secure means of depositing money. Modern banks are combining technology and human skills to make banking more convenient and efficient. The UPI system in India proved to be a massive game changer in the banking systems, but despite having such incredible features, these banks are constantly dealing with fraud and theft. Identity theft and phishing fraud are the most common types of banking fraud. These frauds resulted in some of the largest banking frauds in history. However, with advanced technology such as artificial intelligence, we can eliminate these issues to a satisfactory level. People and their money were truly saved by artificial intelligence. Artificial intelligence is changing people's lives and promoting a healthy and sustainable environment.

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