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Patent Search

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Abstract:

ABSTRACT MACHINE LEARNING-BASED APPROACHES FOR FRAUD DETECTION AND PREVENTION FOR A SECURE FINANCIAL FUTURE The method for the development to fir fraud has risen as a result of the widespread use of internet services across many businesses, particularly the financial industry. To prevent serious financial loss for both p and businesses, fraud detection and prevention are essential. One significant obstacle, though, is the dearth of publicly accessible databases including fraud. The goal of tl is to use cutting-edge machine learning methods to address these problems. For the purpose of discovering such fraudulent operations, traditional methods like manual verifications and inspections are inaccurate, expensive, and time-consuming. With the development of artificial intelligence, a multitude of financial data may be intelligent analyzed to identify fraudulent transactions using machine-learning-based techniques. Compared to conventional systems, ML solutions can recognize and apply more int and varied rules on their own. In order to do this, machine learning (ML) algorithms analyze data from previous fraud instances, find patterns and connections among data and create models that are trained to recognize those patterns when they appear in other datasets. The financial sector is rapidly going digital, and financial transaction fr taking on more sophisticated and diversified forms, posing serious hazards to people, businesses, and even the financial system as a whole. Due to their inherent limitatio existing fraud detection technologies are becoming more and more difficult to use in responding to developing scams.

Complete Specification

Description: Technical Field

[0001] The embodiments herein generally relate to a method for machine learning-based approaches for fraud detection and prevention for a secure financial future.

Description of the Related Art

[0002] The technologies make transactions simple and do away with the need for cash, online bill payment services, debit and credit card systems, and internet bankin systems have all grown to be indispensable components of our daily life. Online transactions offer convenience, but they also carry a high danger of financial crime and unlawful payments. Internet and online banking customers still face difficulties as a result of several financial frauds, including money laundering, insurance fraud, identi theft, fraudulent banking activities, and more. Finding illicit financial activity is a complex and challenging task. Financial fraud may occur in a variety of contexts, includin the business, banking, insurance, and taxes sectors. Money laundering, financial transaction fraud and other financial crimes have become more of a problem for businesses recently.

[0003] Large sums of money are lost to fraud every day, and despite several attempts to curtail it, its persistence has a negative impact on society and the economy. M years ago, a number of fraud detection techniques were established. In light of this, it is now especially crucial to identify and put into place efficient fraud detection and prevention strategies. The limitations of classic fraud detection systems have increasingly become apparent, despite their significant contribution over the last few decad This is mostly due to the ongoing innovation of fraudulent tactics and the rapid expansion in data volume. Techniques for detecting machine learning fraud are crucial in helping firms avoid financial and operational disasters by minimizing losses. Only explicitly specified rules may be followed by static defenses; in contrast, dynamic learni systems can adapt to the changing threat landscape in real time, making ML foundational to any effective solution for ongoing fraud protection. There has been much

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