

# PREVENTION AND DETECTION OF FAKE CHEQUE SCAMS USING BLOCKCHAIN

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**Abstract**—A fake cheque scam is one of the most common ways used to commit fraud against consumers. Currently, there is no existing method to authenticate checks and detect fake ones instantly. Instead, banks must wait for a period of more time and date to detect the scam. More precisely, our approach helps the bank to share information about provided and used cheques without exposing the bank's customer's data. Fake cheque scams come in many forms. They might look like a business or personal cheques, cashier's cheques, money orders, or cheques delivered electronically. These scams work because fake cheques generally look just like real cheques, even to bank employees. They are often printed with the names and address of legitimate financial institutions. Banks are maintaining security services for money transaction to customer security purpose directly check with customer and requires their permission. If response received from concern customer only, transaction will be happened.

**Keywords**—*block chain , cheque , security , authentication, fraud ,bank.*

## I. INTRODUCTION

In our current society, cheques represent one of the dominant payment methods. A cheque is an order written by the depositor instructing the bank to pay a specific amount to a recipient from the depositor's bank account. Unfortunately, numerous malicious scammers exploit some flaws in the banking system to commit frauds. Indeed, frauds employing fake cheques are growing rapidly and cost billions of money. we focus on fake cheque scams. This fraud is achieved by getting people mainly through some email scam, establishing a relationship a business relationship most of the time sending them overpaid counterfeit paycheque and finally asking for the overpayment.

## II. LITERATURE SURVEY

1. Badis Hammi,Sherali Zeadally,Yves Christian Elloh Adja,Manlio Del Giudice,and Jamel Nebhen, 2021,"Blockchain-Based solution for Detecting and preventing Fake Cheque Scams" Published in IEEE

Transaction on Engineering Management.This paper uses the methodology Digital Signature Algorithm.In this context,we propose a blockchain based scheme to authenticate cheques and detect fake cheque scams.our approach allows to revocation of used cheques.The signature provide authenticity and ensure that signature is verified and it requires lot of time to authenticate the verification process.

2. Emart 77,Beirut,Lebanon,2021,"The Role of Blockchain in Reducing the cost of financial transactions in the Retail industry" published in WCNC.This paper uses the methodology consumer packaged goods.The aim was to assess the role of blockchain in reducing the cost of financial transactions in the retail industry.Consumer packaged goods-and to some extent,services is arguably one of the most challenging industries to be successful in and is being a consumer limited resource that they are forced to accept.
3. Dilip Kumar Sharma,Sonal Garg,Priya Shrivastava,2021,"Evaluation of tools and extension for fake news detection" published in IEEE International Conference on Innovation Practice in Technology Management (ICIPTM).This paper uses the methodology Bi-LSTM classifier. It is a sequence prediction model. It is a discriminative classifier model the decision boundary between different classes and since Bi-LSTM has double LSTM cells so it is costly.It is not good for speech recognition.
4. Vikash Kumar Aggarwal, Nikhil sharma, Ila Kaushik,Bharat Bhushan,Himanshu,2020,"Integration of blockchain and IoT(B-IoT):Architecture,solution,& Future Research Direction" published in 1st International Conference on computational Research and Data Analytics(ICCRDA).The methodology used is Integration of Blockchain and IoT.This paper present introductory part of IoT enabled with blockchain,their key features,architecture layout,characteristic features of both the

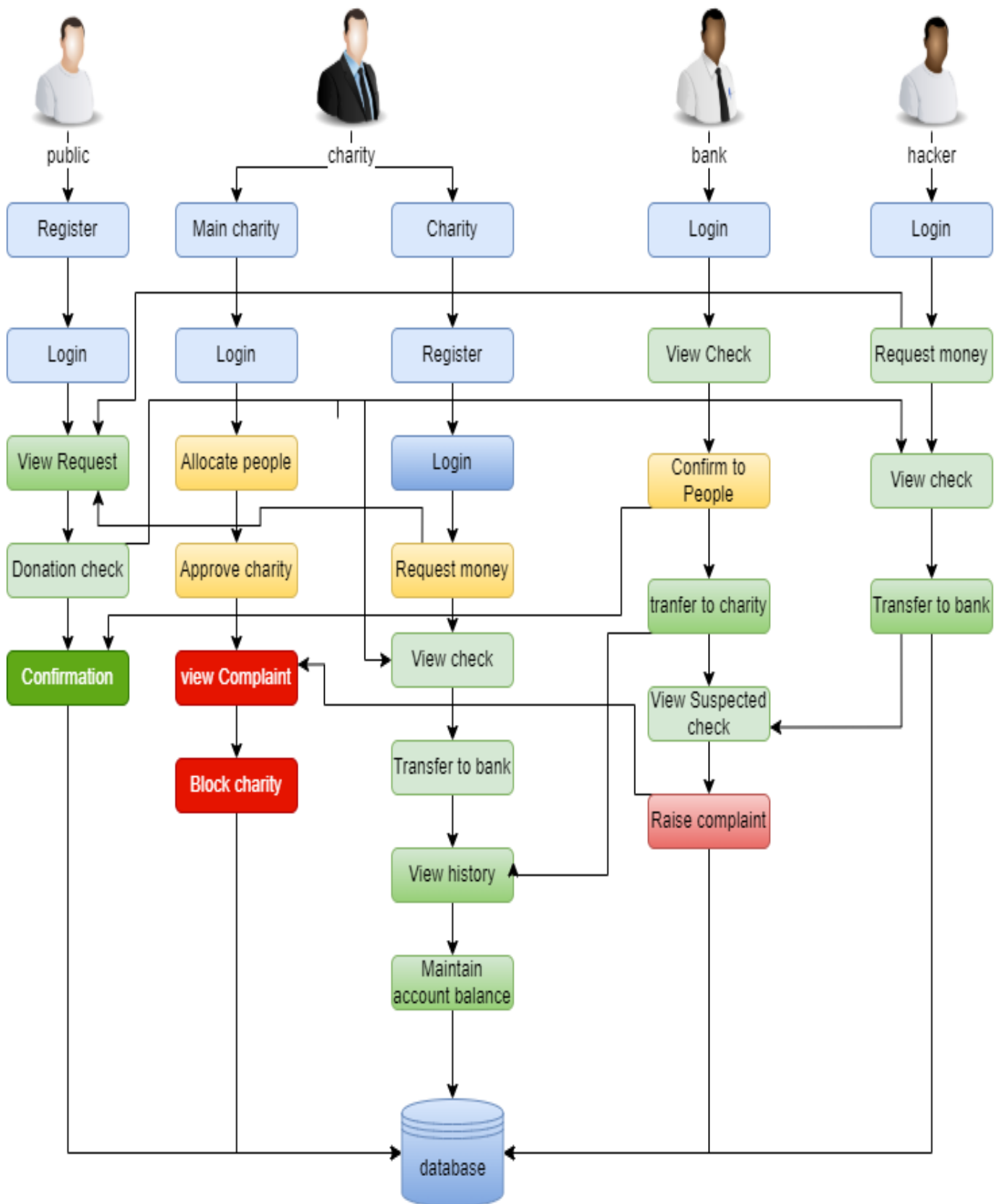
technologies, their futuristic solutions for different real-world problems, different communicational models.

5. Jackie Jones, Damon McCopy, 2020, "The Cheque is in the mail: Monetization of Craigslist Buyer Scams" published in IEEE APWG Symposium. The methodology is conservation classification strategy. In this paper, extend on previous works about fake payment scams targeting Craigslist. To grow our understanding of scammer methods and how they monetize these scams compared to manual data entry automatic data entry greatly reduced error.
6. Abiola, Idowu, 2019, "an Assessment of Fraud and its Management in Nigeria Commercial Banks" published in IEEE paper European Journal of Social Science. Methodology used is Pearson Product Moment Correlation Coefficient. It aims at finding practical means of minimizing the incidence of fraud in Nigerian banks. During this course of the investigation efforts were made to identify various means employed in defrauding banks and at the same time determine the effects of the fraud on the banking services.
7. Sumeet Kumar, 2018, "Simulating DDOS attacks on the us fibre-optics internet infrastructure" published in Proceedings of the 2017 Winter Simulation Conference. Methodology used is Cyber-attacks. In this research paper we have designed a test-bed that mirrors the Internet infrastructure of the US and can simulate the internet traffic flow patterns for different attack targets. we also estimate the degradation in the quality of service and the number of users impacted in two attack scenarios. Network simulation model to understand the internet traffic flow pattern in a DDOS attack situation. Alerting data through remote access or damage the system causing data loss.
8. Nazil Ismail Nawang, 2017, "Combining anonymous offenders in the cyberspace: An overview of the legal approach in Malaysia" Published in conference. This feature is most commonly cherished by internet users as they are empowered to publish online content anonymously or in the alternative to conceal their true identities behind fictitious names. It identifies the anonymous offender in the cyber world and the user must know the various laws that have been enacted to govern publication of illegal content.
9. Haris S emic, Sasa Mrdovic, 2017, "IoT honeypot: A multi-component solution for handling manual and Mirai-based attacks" published in IEEE 25th Telecommunication forum TELFOR 2017. Methodology used is internet-of-things (IoT) devices. the honeypot operates with manual and Mirai-based attacks. It is used to attain sufficient exposure to malicious traffic and security of collected data and the plank of security has left IoT devices vulnerable to various attacks that aim to take control of said devices and utilize them for various malicious purposes.
10. Bernie, S. Fabito, Angelique D. Lacasandile, Emeliza R. Yabut, 2017, "Leveraging crime reporting in Metro Manila using unsupervised crowd-sourced data: A case for the Report framework" published in International conference on control, electronics, renewable energy and communication. this paper uses the methodology Ping ER Monitoring Agent. It aims to provide a venue for victims of crimes to report their experiences without having to go directly to police stations. Those who have experienced the same offense in the area can link their reports with those previously reported offenses which refer to the same case. In this existing ping ER scripts which generate hourly, monthly and yearly reports can work seamlessly. This is because, in this framework, contents are addressed through hashes which is a widely used means of connecting data in a distributed network and demerit is the downside of using an always-free tool is that it may be missing key features that you need, And with always-free tools, what you get is what you get.
11. Wendy Baker-Smemoe, Chair David Eddington William G. Eggington, 2015, "The language and Cross-culture Perceptions of Deception" published in Brigham young university. Methodology used is Qualtrics survey block. Research has shown that some linguistic features can indicate a person is lying, this line of research has led to conflicting results. very little research has been done to verify that these supposed linguistic features of deception are universal. Rather than creating two surveys, you could create two blocks of questions within one survey and randomly assign participants to one block or the other and demerit is qualtrics support could use some work. It can be difficult to help in the community.

### III. PROPOSED METHODOLOGY

To verify the authenticity of a given cheque, without exposing the bank's customer's personal data. To evaluate the performance of our proposed approach, we also deployed our cheque's authentication scheme based on the blockchain. The technique use is SHA algorithm, AES algorithm. It requires less time for computation. Data transaction is extra cozy manner to client and charity through bank. Bank asking validated consumer and client give the permission the financial institution may be send the cash in charity.

## SYSTEM ARCHITECTURE DIAGRAM



#### IV. SYSTEM ARCHITECTURE

The system architect establishes the basic structure of the system, we can put a small part of data in local machine and for server in order to protect the privacy. Moreover, based on computational intelligence, this algorithm can compute the distribution proportion stored in cloud, fog and local machine respectively. Through the theoretical safety analysis and experimental evaluation, the feasibility of our scheme has been validated, which is really a powerful supplement to existing cloud storage scheme.

#### V. FUTURE ENHANCEMENTS

- Implementing the real-world database system.
- Improving the efficiency of protocols, in terms of the number of messages exchanged and in terms of their sizes, as well.
- Implement using two or more algorithms.

#### VI. CONCLUSION

Banking scams involve attempts to access your account. Use the information to report, recognize and protect yourself from them. These scams work because of fake cheques that generally look just like real cheques, even to bank employees. They are often printed with the names and addresses of legitimate financial institutions. They may even be actual cheques written on bank accounts that belong to identify theft victims. It can take for the bank to figure out that the cheque is fake.

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