Anant Sahoo Deep Patel Sulaiman Mohyuddin

Title: FRAUDFIENDS ANNOUNCES CREDIT CARD FRAUD DETECTION MODEL TO ENABLE CONSUMERS TO AUTOMATICALLY DETECT POTENTIAL FRAUD THREATS TO MITIGATE FRAUDULENT PURCHASES.

Subtitle: A New AI-Powered Solution That Protects Consumers by Detecting Fraud in Real-Time

Intro Paragraph:

Knoxville, TN-12/03/24 – To help credit card users, we are creating a new logistic regression-based machine learning model that will help us identify potentially fraudulent purchases. It will use information about the user and where and who the purchase was made to to determine its chances of being fraudulent. It will provide the users with real-time feedback about their purchases and strive to ensure their financial security.

Customer Problems:

- 1. *Difficulty Finding Fraud*: It can happen at any moment. Even when we diligently check our purchase history, our memory may play tricks on us and create doubt when doubt is unnecessary or comfort us when suspicion arises.
- 2. High Frequency of False Positives Among Existing Tools: Existing tools can be overwhelming and cause stress over completely valid purchases.
- 3. *Improved Customer Confidence*: Due to fraudulent attacks, customers might be discouraged from using their credit cards at certain locations.

Solution:

Our solution is powered by AI-driven detection, actionable alerts, and accessibility. We provide an inclusive platform that is compatible with all kinds of devices and platforms. We analyze thousands upon thousands of data points to train and fine-tune our model to the highest degree ensuring limited false notifications. We send real-time notifications to consumers warning them about potential fraud. The product will give customers the peace of mind to not have to worry about falling for fraudulent attacks.

Leader's Ouote:

"Fraudulent transactions can severely damage people's finances. At FraudFriends, we wanted to empower consumers by giving them a premium service utilizing cutting-edge technology the big banks use to prevent fraud. Our AI-driven model not only identifies threats quickly but does so with unparalleled accuracy." - Jeet Das, CMO at FRAUDFIENDS

Customer's Job-to-be-Done:

To be able to use the product, all the user has to do is create an account with any form of our product (be it a phone app, desktop app, or website) and then link their bank account to give us real-time access to their purchase history. Once this is done, they are free to use their credit card as they wish and we will send the customer a message whenever we have determined there is a chance that a charge on their credit card was fraudulent using all the information that was given to us by the bank and the user to make as accurate a prediction as possible.

Customer Quote:

"Before using FRAUDFIENDS, I was constantly worried about fraudulent transactions going unnoticed, especially with multiple high-value daily charges. My goal was to protect my business without having to spend a lot of time handling disputes. However, after implementing FRAUDFIENDS, I get peace of mind as this application immediately flags any suspicious activities." - John Doe, Manager at Sahoo Industries

To learn more, go to <u>fraudfiends.com</u>.

FAQs

1. Who is your customer? Who will be using your product?

Our customers will be individuals who are concerned that a specific credit card transaction may be fraudulent and want to verify if their credit card charges are legitimate.

2. How does your product make your customer's life significantly better? What is the problem to solve?

Our product aims to determine whether card details have been compromised or fraud has been committed. This process gives people peace of mind when obtaining a credit card and making purchases. The product also aims to eliminate the need to check fraudulent transactions manually.

3. Why is this a problem that needs to be solved right now?

There are more fraudulent transactions than ever before, and online transactions are at an all-time high as more businesses move toward the online market.

4. What might disappoint the customer?

The customer will be disappointed if our model misses fraudulent transactions often or flags non-fraudulent transactions too often.

5. How will the customer discover or find our product? Is this a web, mobile, desktop, or a specialized tool/app?

We are planning to release a press release on our upcoming product, which will let people know who we are and how our product will be able to help them. The product itself will be platform-independent and won't require any specific computational capabilities on the device itself since it will be offloaded to a server. Therefore, we could create both a desktop application as well as a phone application and possibly a website as well.

6. How will you measure success?

Success will be measured by how accurately the model classifies fraudulent transactions. We will also consider customer satisfaction, which will be evaluated based on how well the model identifies fraudulent transactions compared to any transactions it misses or incorrectly flags.

7. What are the baseline model(s) and paper(s) you will use for inspiration?

Logistic regression (LR). A review of Fraud Detection Techniques: Credit Card

8. What is the dataset for your project?

We are using the Credit Card Fraud Data set.

https://www.kaggle.com/datasets/neharoychoudhury/credit-card-fraud-data/data

9. What are the computational needs for your idea?

Network: We require low latency to ensure seamless real-time fraud detection

Speed: We want to notify the user as quickly as possible, so the computation needs to be relative. This means we would need a server capable of instantaneously computing the model's result on the user's transactions.

10. What are the key milestones in your roadmap:

Add or delete rows as needed. Grid is helpful way to visualize the milestones you envision

	Milestone/Feature Description	Priority	Deadline
1	Do exploratory data analysis	Medium	9/30/24
2	Clean and Fix the Data	High	10/4/24
3	Split Data	Low	10/5/24
4	Train the model	High	10/12/24
5	Test the Model with sample test data and calculate cost	Medium	10/14/24
6	Midterm Project Report	High	10/18/24
7	Assess the efficiency of the model	Medium	11/01/24
8	Update any parameters as needed to improve the model	Medium	11/10/24
9	Finalize the model	High	11/20/24
10	Delivery of project presentation	High	11/26/24
11	Delivery of final project report	High	12/03/24