

**MACHINE LEARNING BASED
FRAUD DETECTION SYSTEM**

TRIANGULATION

FRAUD

TEAM 18

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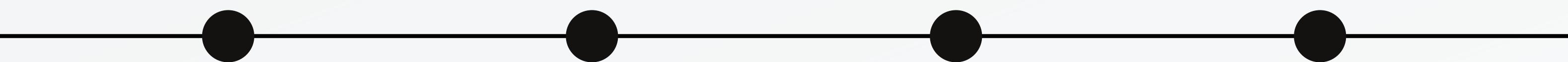


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INTRODUCTION

UNDERSTANDING
WHAT IS
TRIANGULATION
FRAUD.

DEFINE

EXPLAINING
DIFFERENT
SITUATIONS AND
ATTRIBUTES.

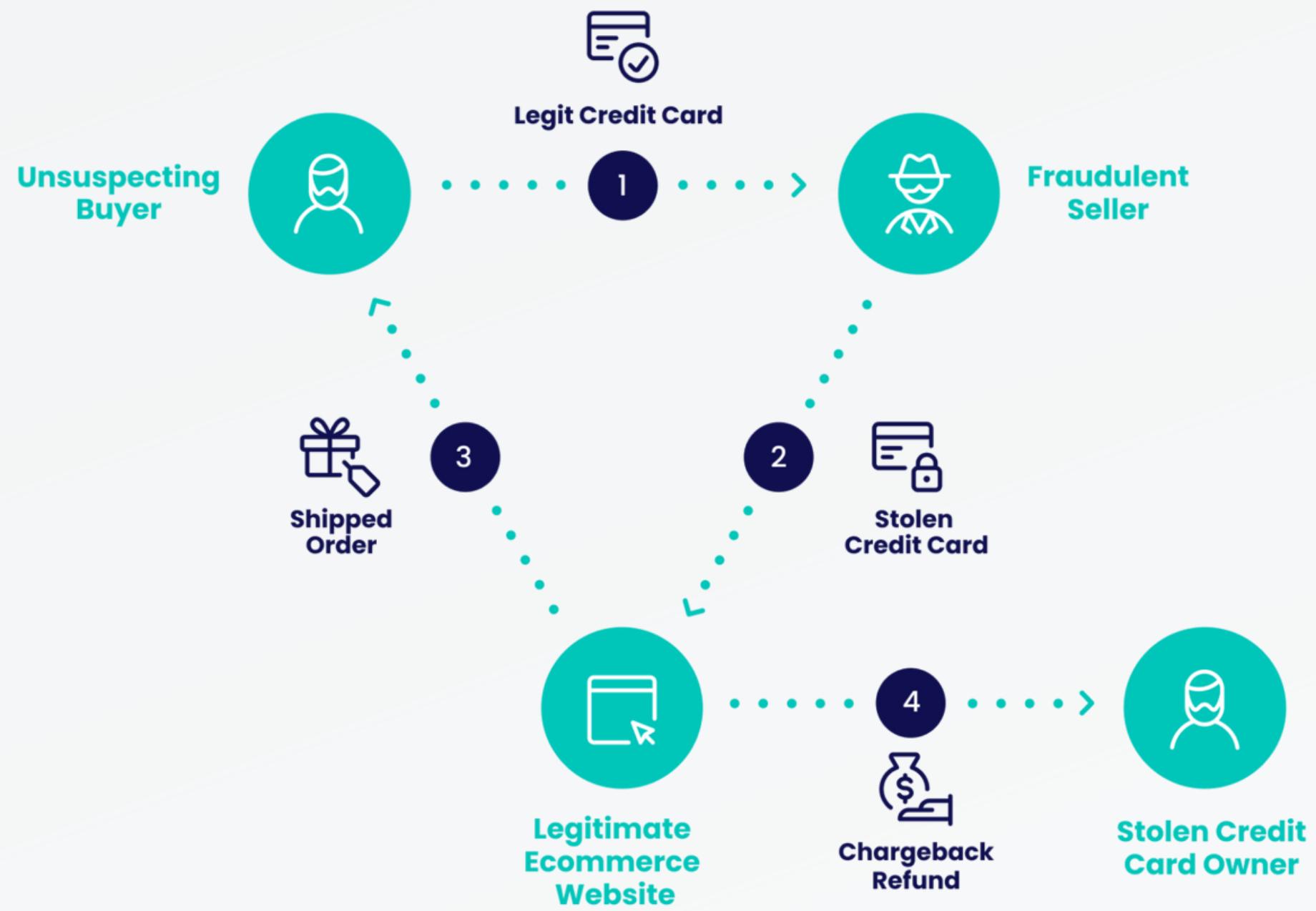
IDEATE

CHOOSING
APPROPRIATE
ATTRIBUTES AND
ALGORITHM.

PROTOTYPE

MACHINE LEARNING
MODEL WHICH
PREDICTS WHETHER
THE SELLER IS FRAUD
OR NOT.

TRIANGULATION FRAUD



- **Triangulation fraud** is a type of online scam where fraudsters use an intermediary to receive and forward stolen goods or merchandise purchased with stolen credit card information.
- It exploits vulnerabilities in e-commerce and highlights the importance of fraud prevention and detection measures in the retail sector. The objective is to detect triangular fraud so that credit card firms' consumers are not charged for products they did not purchase.

EXAMPLE

Unsuspecting Buyer

- iPad costs 600\$ on Apple store
- Before this offer ends I should place my order here.



Fraudulent Seller

- We have an exciting offer, iPad for 300\$!



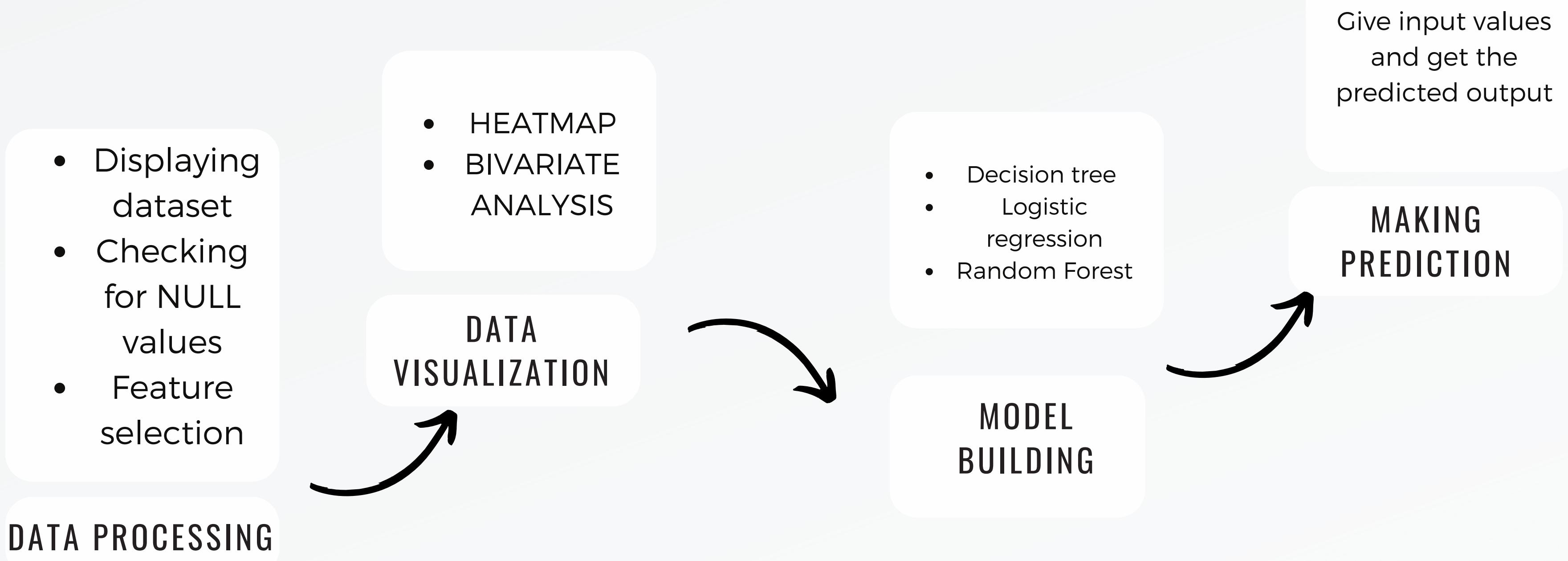
STEPS:

- The customer pays the fraudster posing as a reseller for the product.
- The fraudster pockets the money from the customer.
- The fraudster places the customer's order with the actual, original retailer, using stolen credit card details.
- The retailer fills the order, charging the stolen credit card and delivering to the original customer.
- The customer receives their order, unaware they were an unwitting money mule.
- The real cardholder discovers the fraudulent charge on their card and files a chargeback with their card issuer.
- The retailer has to refund the money but has no recourse to reclaim their product.

ATTRIBUTES

- 
- 01** WHETHER CASH ON DELIVERY SERVICE IS PROVIDED
 - 02** WHETHER RETURN POLICY IS PROVIDED
 - 03** MODE OF PAYMENT OF ORDER
 - 04** MERCHANT DETAILS
 - 05** AMOUNT AND FREQUENCY OF ORDER
 - 06** RATIO TO MEDIAN PURCHASE
 - 07** DISTANCE OF THE TRANSACTION HAPPENED

MACHINE LEARNING MODEL



ALGORITHMS USED:

- DECISION TREE :
Accuracy - 99.0%
- LOGISTIC REGRESSION :
Accuracy - 95.8%
- RANDOM FOREST CLSSIFIER :
Accuracy - 99.9%

PROJECT LINK

[https://colab.research.google.com/drive/1f1DjjuoA6u
Nph2WPVtZ2cUJt06nRTImX?usp=sharing](https://colab.research.google.com/drive/1f1DjjuoA6uNph2WPVtZ2cUJt06nRTImX?usp=sharing)

CONCLUSION

Triangulation fraud can be hard to spot, particularly without specialized security software in place. In the setup of a triangulation scheme, every actor present in the scam may initially appear legitimate. There will be a real customer, a real credit card, and a real order of real products.

As with any kind of digital fraud, knowing as much about your customer as possible is essential, but having in place good security with minimal friction and false positives is a delicate balance.



**THANK YOU FOR
WATCHING**

