# COMBATING FRAUD BY LEVERAGING MACHINE LEARNING AND HUMAN BEHAVIOR

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## **ABSTRACT**

I am writing about fraud and how to detect it! Wooh!

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#### CHAPTER 1

#### INTRODUCTION

Introduction about Fraud stuff!!

# 1.1 Modern Day Fraud

The text for Section 1 goes here.

## 1.1.1 Credit Card Fraud

# 1.1.2 Online Payments Fraud

## 1.2 Current Research

## 1.3 The Human Element

In this section I will discuss some game theory and behavioral elements of fraud and ways of eliminating frauds and fraudsters.

## CHAPTER 2

#### FRAUD IN CONTEXT

## 2.1 Interviews from Professionals

This section will be about what professionals are doing in the fraud field.

## 2.2 Research Versus Reality

This section I will compare whatever I find out from professionals to the most modern research on this topic. I assume research will be slightly behind what these professionals are dealing with and how they are solving these problems.

#### CHAPTER 3

#### IMPLEMENTING A FRAUD DETECTION SYSTEM

# 3.1 Model

This section is where I will talk about the overall system I am planning on implementing.

# 3.2 Experiment

# 3.2.1 Hypothesis

## 3.2.2 Data

## **3.2.3 Methods**

LOTS of Machine Learning incorporated into bigger fraud detection and rule based learning systems! Overall system will be discussed in Model section.

## **3.2.4 Results**

This section will be full of tables and figures. There will probably also be an appendix with the entire set of experiments run. The most interesting or a subset of the experimental runs will be in a table in this section.

## 3.2.5 Discussion

This section will compare my hypothesis to the results, as well as my results to the model I'm basing it off of. I also plan on adding any notes I learn along the way of this implementation.

#### CHAPTER 4

#### **FURTHER APPLICATIONS**

# 4.1 Anomoly Detection

## 4.1.1 Cell Phone Fraud

## 4.1.2 Biometric Fraud

## 4.1.3 Bioinformatics

#### CHAPTER 5

#### **CONCLUSIONS**