

# Project Plan

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## Project Objective:

The topic we want to explore is “Data Breaches” and our focus is on automating the process of identifying the breach. And to do so, we are going to implement and generate a model using Machine Learning algorithms. The problem we are going to work on is “Credit Card Fraud Detection” .

## Project Approach:

Our Approach involves following steps:

- Gathering and visualizing the data. To get a brief understanding of the data that we are going to work with.
- Deciding on what type of models to use, that could best detect the fraud, based on the data we have.
- And create a bunch of models and assess the accuracy of each model (gathering output data from the models we generated).
- And finally, compare our results, observations, and precision/accuracy of different models.

*For Implementation we are going to use:*

Language - Python

Framework - Keras and TensorFlow

Dataset – Kaggle

We are going to use Jupyter Notebook and GitHub for integration and code sharing.

## Team Structure:

We are team of two. We both will be finding the data source and visualize the data that we gathered and discuss on what models would be best to implement based on the data we have.

We will split the implementation of the decided models and gather the outputs of both the implementations.

We will finally evaluate the observations of the models that we implemented.

We both will be contributing to the Final Presentation Slides.

## Project Milestones:

- Setting up the environment for our project (Python 3.8, TensorFlow 1.4 and Keras 2.0)
- Data Gathering and Data Visualization
- Deciding the models
- Designing the model and gathering output's
- Analyze/Evaluate the observations and accuracies of the models
- Code Submission
- Final Presentation