Capstone Project proposal

Objective: To classify images of different pieces of clothing.

Client & Data-Set: Fashion-MNIST is a dataset of Zalando's article images—consisting of a training set of ***60,000*** examples and a test set of ***10,000*** examples. Each example is a 28x28 grayscale image, associated with a label from ***10 classes***.

Data-set is publicly available on kaggle and Zalando Fashion MNIST repository on Github.

Fashion-MNIST is intended as direct drop-in replacement for the original MNIST dataset. It shares the same image size and structure of training and testing splits.

Business Impact: E-commerce companies have lots of items for sale online which requires lots of images to be displayed on their websites, applications and on social media. And it takes lot of human power and time to separate these images into respective groups. This classifier which we are going to build helps businesses to categorize images into respective groups.

Methodology: For this project I will be going to use deep learning concepts like artificial neural networks and convolutional neural networks to build an image classification model which will learn to distinguish 10 different item images into their respective categories.

Labels: Each training and test example is assigned to one of the following labels:

- 0 - T-shirt/top
- 1 - Trouser
- 2 - Pullover
- 3 - Dress
- 4 - Coat
- 5 - Sandal
- 6 - Shirt
- 7 - Sneaker
- 8 - Bag
- 9 - Ankle boot

Deliverables: Report, code and slide deck.

Here's an example how the data looks (*each class takes three-rows*):