# DeepLearning\_Lesson1: Basics in Keras

#### **Lesson Overview:**

In this lesson, we are going to have an introduction to Deep Learning programming on Keras. Before to that, we will introduce some of the applications of the Deep Learning in the area of vision and NLP.

## **Use Case Description:**

Predicting the diabetes disease

## **Programming elements:**

**Keras Basics** 

#### **Source Code:**

https://umkc.box.com/s/3cvfiwc81lhgygc67deyeqs8m858lld0

# In class programming:

- 1. Use the use case in the class:
  - a. Add more Dense layers to the existing code and check how the accuracy changes.
- 2. Change the data source to Breast Cancer dataset \* available in the source folder and make required changes
- 3. Normalize the data before feeding the data to the model and check how the normalization change your accuracy (code given below).

```
{\it from sklearn.preprocessing import StandardScaler}
```

sc = StandardScaler()

Breast Cancer dataset is designated to predict if a patient has Malignant (M) or Benign = B cancer

#### **Evaluation Criteria:**

- 1. Completeness of Features
- 2. Code Quality (<a href="https://en.wikipedia.org/wiki/Best coding practices">https://en.wikipedia.org/wiki/Best coding practices</a>)
- 3. Time
- 4. Feedback Submission

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