# WiDS Project Report

In this WiDS project, I learned to use the concept of Siamese neural networks in facial recognition. In the first week of this project, I learnt the concepts of linear and logistic regression and how they could be used to fit predictions to new data based on a given dataset. I was also introduced to the various Python modules I would be using in this project, like Numpy, Pandas and Matplotlib. In the second week, I learnt about classifiers, the structure and functioning of simple neural networks, and got a glimpse of how the YoloV8 software is used in image recognition and classification. In the third week, I learnt about an integral part of neural networks used in facial recognition, namely Convolutional Neural Networks, and how to preprocess an image or video before it is passed into neural networks, using the software OpenCV. In the final week, I put together all the concepts I had learnt so far to create a Siamese Neural Network, using OpenCV to create a dataset for the model, and to run it in real time.