**Day 30**

**What to do?**

Build a simple autoencoder using TensorFlow or PyTorch.  
  
**Framework**: TensorFlow

**Step 1:**  
Dataset: Fashion MNIST; Preprocess the dataset  
  
**Step 2:**  
Choose the encoder dimension (number of neurons to have in the compressed layer): 36  
Since output dimension should be same as the input, we set the output dimension to be 784.  
Network: input images are compressed to encoded dimension with relu activation function; the output is then passed to a decoded function as input that results the output with initialized dimension with sigmoid activation function.  
(784,) --> (36,) --> (784,)  
  
**Step 3:**  
Train the model using adam optimizer and binary crossentropy loss function with 15 epochs and batch size of 256.  
  
**Step 4:**  
Visualize the test images with decoded images to see how well the encoder performed. (As seen in the image)