

**How to train and test the model:**

1. Run the provided code.
2. The model will be trained automatically, for both datasets.
3. The VAE weights and SVM model will be saved
4. The accuracies for different numbers of labels will be printed, as well as comparison between real and reconstructed images.

**Note:** The code assumes that the Fashion-MNIST / MNIST datasets will be downloaded and stored in the `data` directory. You may need to adjust the path if your dataset is located elsewhere.