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CS5785 Homework 3 – Part I

Writeup

It was interesting to see to see how powerful PCA in situations like this one where a lot of the features are highly correlated or have very little variance. Of the 2500 many are either the same shading or are so like their neighboring features. Ultimately, only around 100 features of the 2500 are needed to maximize classification accuracy. In situations where these features are very different PCA would likely be pretty bad and lose a lot of information.