

Machine Learning
Computer Science 158
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Project 7

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1 PCA and Image Reconstruction

- (a) The average face seems to have common features like eyes, nose and mouth that are in every picture in the data set.
- (b) TODO
- (c) TODO

2 K -Means and K -Medoids

- (a) This is a bad idea because the quantity J will be minimized when the number of clusters is n , and each cluster centroid corresponds to a data point in the training set. In other words, if we also minimize with respect to k , we will massively overfit the data.