

MATH 567: Mathematical Techniques in Data
Science
Lab 7

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- 1 Familiarize yourself with the R commands to perform PCA by doing Lab 1 in Section 10.4 of the book.
- 2 Zip data:
 - Compute the first 2 principal components for the zip dataset.
 - Construct a plot displaying the projection of all the images on the 2 dimensional subspace generated by the first 2 principal components.

Some useful commands to make your plot:

```
library(grDevices)
mypal = rainbow(10)
plot(something, pch=20, col=mypal[col_indices])
legend("bottomright", legend=0:9,
      col=mypal[1:10], pch=20, ncol=2)
```

First 2 PCA projection

