Principal Component Vectors

(1/1 point)
Principal component vectors have length

- n -- the length of the dataset
- sqrt(n)
- d -- the number of features ✔
- k -- the number of principal components selected

Eigenvalues

(1/1 point)
The top k principal components correspond to the top k eigenvalues.

Lab4 - Neuroimaging Analysis via PCA
Lab due Aug 08, 2016 at 23:00 UTC

Lab4 Quiz
Quiz due Aug 08, 2016 at 23:00 UTC

- (●) True ✔
- ( ) False

Computation and Storage Complexity

(1/1 point)
The distributed PCA algorithm we implemented in the lab used:

- [x] O(d^2) local storage
- [x] O(d^3) local computation
- [ ] O(d) local storage
- [ ] O(d^2) local computation

✔

Note: Make sure you select all of the correct options—there may be more than one!

Plotting Correlated Variables

(1/1 point)
In Visualization 1, what would the data look like if covariance equaled -1.0?

- A vertical line
- Similar to covariance of 0
- Similar to covariance of .9
- A diagonal line ✔

High Positive Covariance

(1/1 point)
In Visualization 1 when the covariance is .9, where are most of the points on the plot?

- lower-left and lower-right
- upper-right and lower-left ✔
- upper-left and lower-right

- upper-left and upper-right

PCA Function

(1/1 point)
When running the pca function what is the largest k we should use?

- 1
- n -- length of dataset
- d -- number of features ✔

Time Based Aggregation

(1/1 point)
In Visualization 9, does the resulting spatial map appear symmetric or asymmetric about the midline (horizontal line across the middle of the brain)?

- Symmetric ✔

Asymmetric

Direction Based Aggregation

(1/1 point)

In Visualization 10, does the resulting spatial map appear symmetric or asymmetric about the midline (horizontal line across the middle of the brain)?

Symmetric

Asymmetric ✔

Survey: Lab4 Completion Time

(1/1 point)

How long did Lab FOUR take you to complete (in hours - decimals are OK)?

5 ✔

Answer: 0

5

Please click "Check" to save your answers.