



Aravindh U

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Week 8 MCQ Challenge: Principle Component Analysis

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Attempt 1

You scored **4/4** in this challenge. Please see the below table for details

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#Question1

In principal component analysis, the principal components obtained captures the direction of maximum variance

Correct Answers

✔ True

Your Answers

✔ True

#Question2

The mean calculated using $\bar{x} = \frac{1}{N} \sum_{i=1}^N x_i$ for mean centering the data is

Correct Answers

✔ Sample mean

Your Answers

✔ Sample mean

#Question3

Covariance matrix for the mean centered x is obtained as-

Correct Answers

✔ $S_x = \frac{1}{N} \sum_{i=1}^N (x_i - \bar{x})(x_i - \bar{x})^T$

Your Answers

✔ $S_x = \frac{1}{N} \sum_{i=1}^N (x_i - \bar{x})(x_i - \bar{x})^T$

#Question4

Eigen vectors X_i with Eigen values λ_i of matrix S_x are the vectors that lies in the null space of-

Correct Answers

✔ $S_x - \lambda_i$

Your Answers

✔ $S_x - \lambda_i$



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