PRINCIPAL COMPONENT ANALYSIS

PRINCIPAL COMPONENT ANALYSIS

What is PCA?

Benefit of PCA

Calculation concept

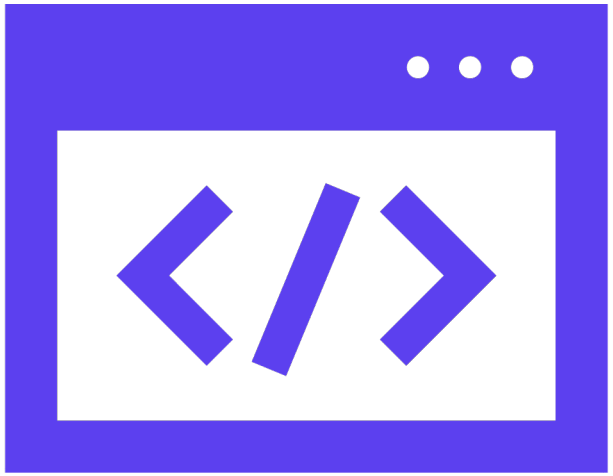
Discussion about PCA

Code

Further reading

What is PCA?

Principal component analysis (PCA) is a dimensionality reduction and machine learning method used to simplify a large data set into a smaller set while still maintaining significant information.

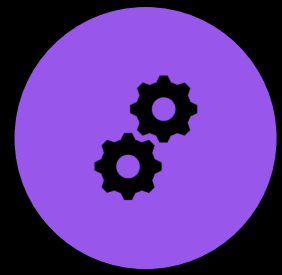


Benefit of PCA

DIMENSIONALITY REDUCTION

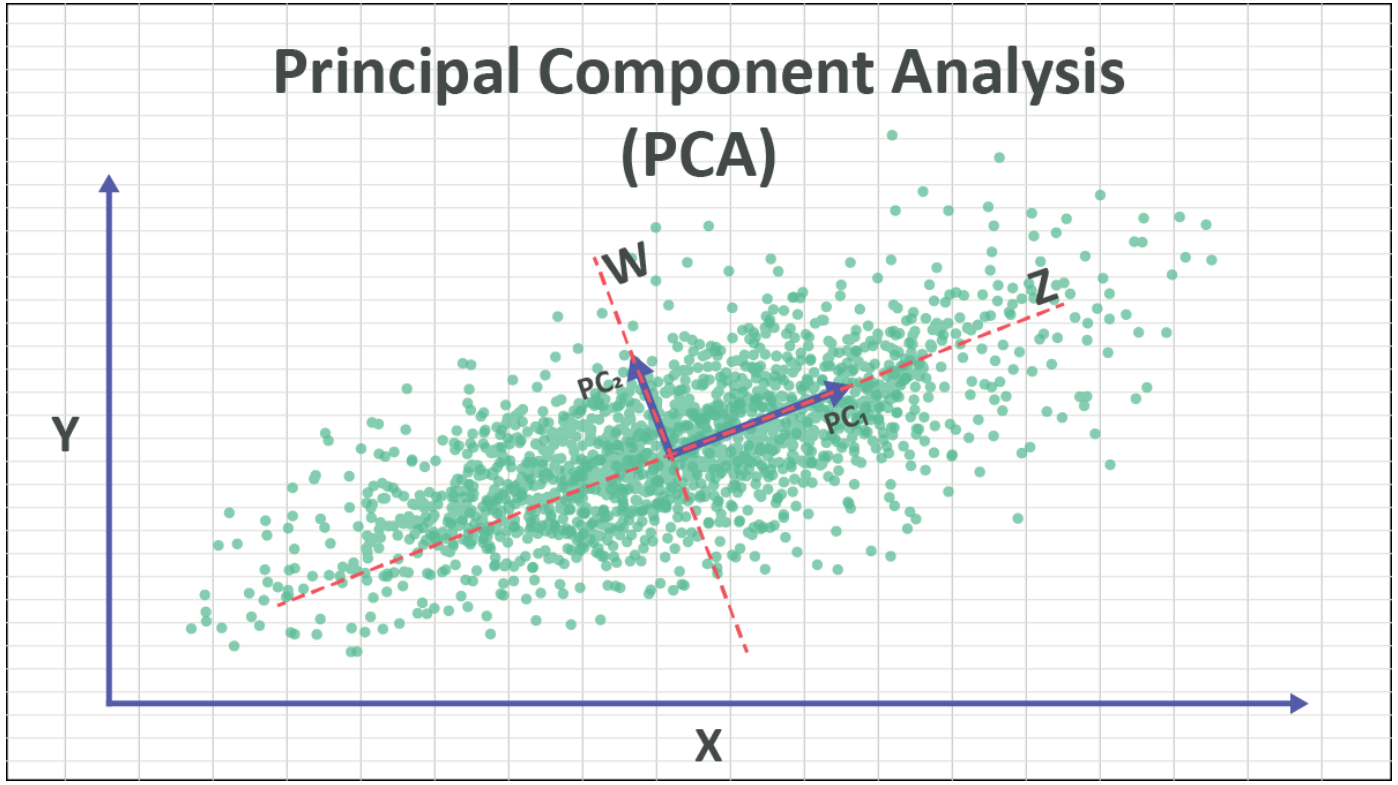
IMPROVED VISUALIZATION

COMPUTATIONAL EFFICIENCY

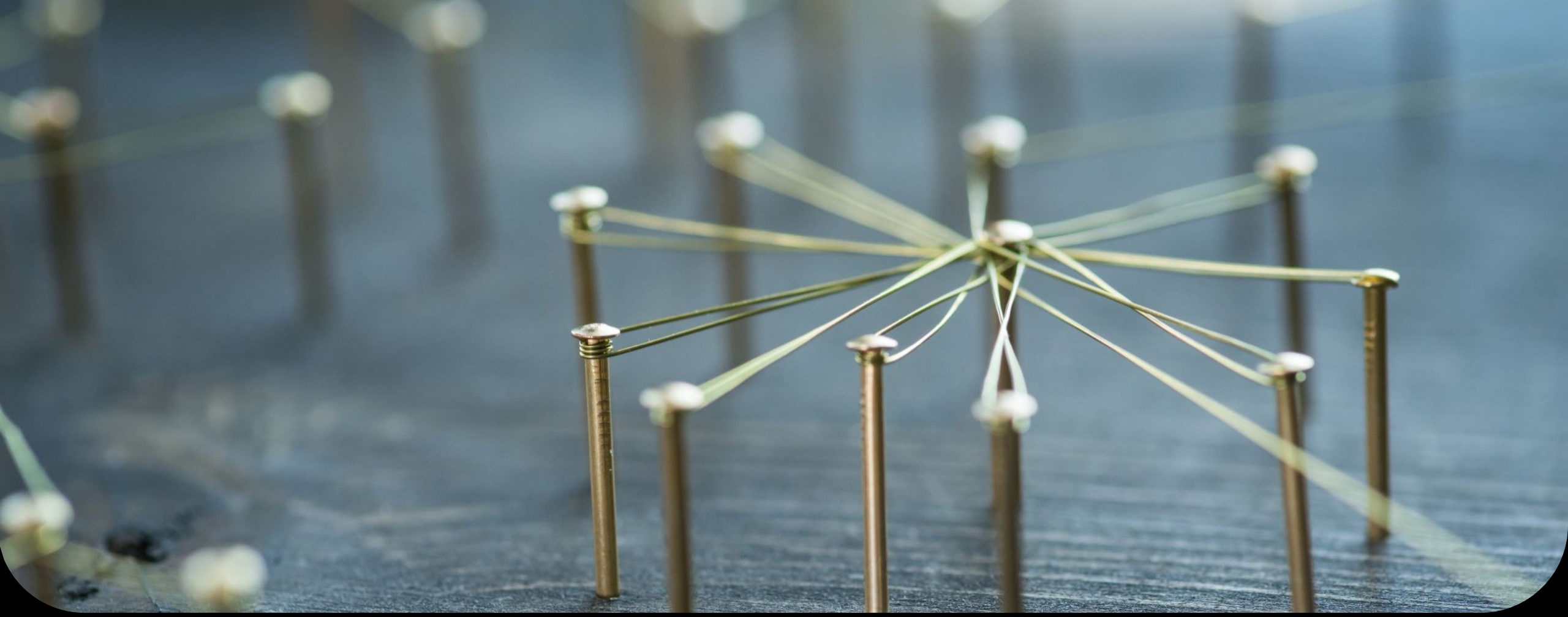


FEATURE ENGINEERING

Calculation concept



https://numxl.com/blogs/principal-component-analysis-pca-101/



Discussion about PCA

Code: PCA.ipynb

Further reading

- Singular Value Decomposition (SVD)
- t-Distributed Stochastic Neighbor Embedding (t-SNE)
- Linear Discriminant Analysis (LDA)
- Isomap
- Locally Linear Embedding (LLE)

Further reading

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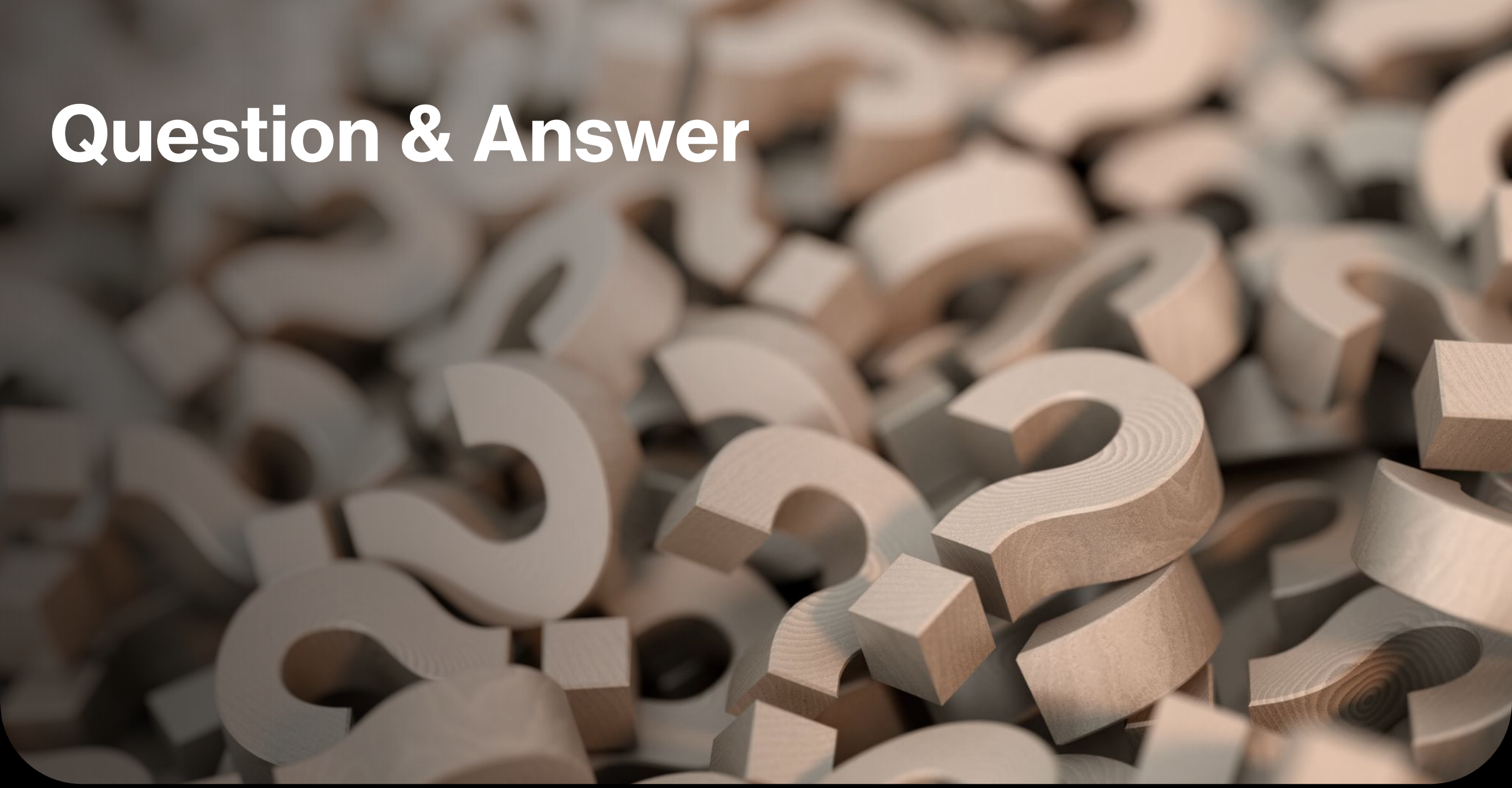
Question & Answer



Reference

- https://builtin.com/data-science/step-step-explanation-principal-component-analysis
- https://numxl.com/blogs/principal-component-analysis-pca-101/

THANK YOU