pyStatQuest

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Preface

1 PCA (Singular Value Decomposition)

StatQuest 154 singular value decomposition SVD PCA:

python

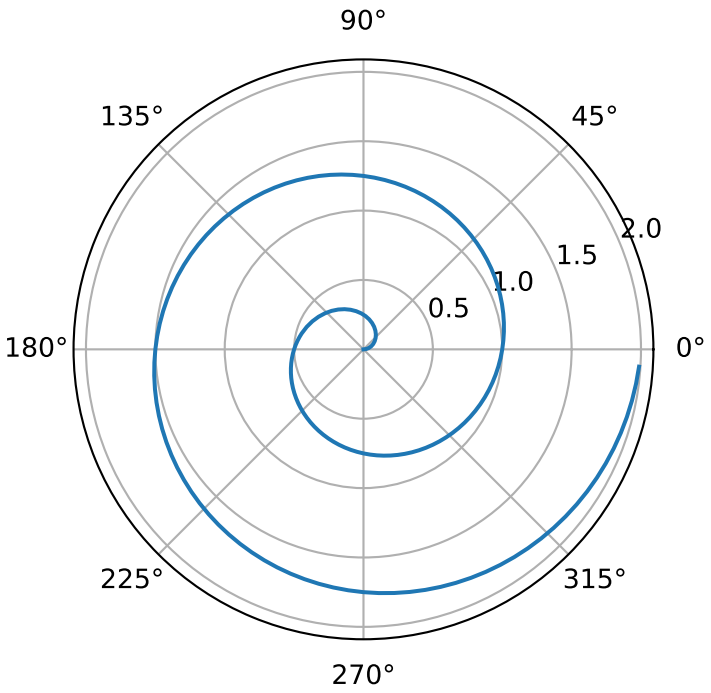
1.0.1

PCA clustering Sum of square of distances / n-1 (variance) PC variance scree plot PCA PC1, PC2 scree plot.

- cocktail recipe, linear combination
- singular vector, Eigenvector, loading score

```
import numpy as np
import matplotlib.pyplot as plt

r = np.arange(0, 2, 0.01)
theta = 2 * np.pi * r
fig, ax = plt.subplots(
  subplot_kw = {'projection': 'polar'}
)
ax.plot(theta, r)
ax.set_rticks([0.5, 1, 1.5, 2])
ax.grid(True)
plt.show()
```



plotly https://plotly.com/python/pca-visualization/

2 Introduction

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

3 Summary

In summary, this book has no content whatsoever.

References

Knuth, Donald E. 1984. “Literate Programming.” *Comput. J.* 27 (2): 97–111. https://doi.org/10.1093/comjnl/27.2.97.