Walkthrough

subtitle

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References 1
Numpy - Numerical Power in Python 2

References

Roughly following the lessons published in Python for Data Science. Other works include Python for Data Analysis and Python Programming and Numerical Methods.

Numpy - Numerical Power in Python

Primer: Data Types and Structures

In python, data are stored as objects in the C language that python is wrapped around. This means that for even the simplest python data types, like a single integer value, there are multiple pieces of information associated with it (eg. value, type, location in memory, and number of things referring to it). The fact that every value has a few pieces of information attached to itis what makes python a flexible and dynamically typed language, but it has painful effects on its speed compared to other state of the art languages.

```
import numpy as np
```

```
import matplotlib.pyplot as plt
import pandas as pd

# path =

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()
```

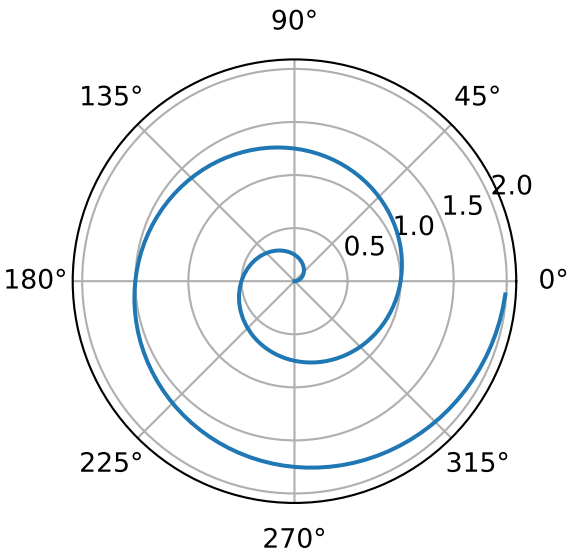

Figure 1: A line plot on a polar axis