kite
Your programming copilot

Search Python Docs...

Install Kite for Free!

STARRED

Kite Doc pages that you star will show up here

Try it out!

HISTORY

Kite Doc pages you visit will be saved here

How to plot a smooth line with Matplotlib in Python

Plotting a smooth line with Matplotlib interpolates data to remove sharp curves and creates a new plot with the interpolated data.

USE scipy.interpolate.make_interp_spline TO PLOT A SMOOTH LINE

Call numpy.linspace(start, stop, num) to create an range of num equally-spaced numbers between start and stop. Use scipy.interpolate.make_interp_spline(x, y) to create a scipy.interpolate.BSpline object from the data, where x and y are both NumPy arrays. Call scipy.interpolate.BSpline(new_x) on this scipy.interpolate.BSpline object to get an array of y-values that correspond to the new x-values. Use matplotlib.pyplot.plot(x, y) to plot the new data values.

```
x = np.array([1, 2, 3, 4])
y = np.array([75, 0, 25, 100])
plt.plot(x, y)
```

ORIGINAL_PLOT.PNG

WANT TO CODE FASTER?

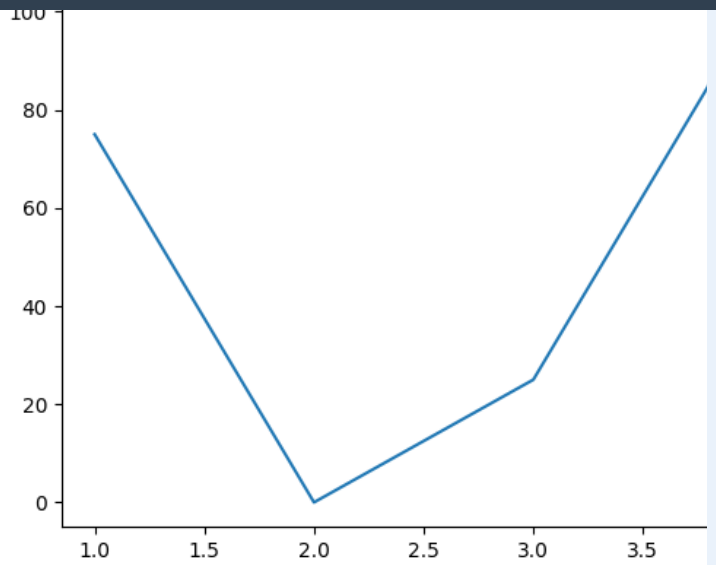
```
import os
import sys

def count_py_files_in_repos(dirname):
    if os.path.exists(os.path.join(dirname, '.git')):
        count = 0
        for root, dirs, files in os.walk(dirname):
            count += len([f for f in files if f.endswith()])
```

Kite is a plugin for any IDE that uses deep learning to provide you with intelligent code completions in Python and JavaScript. Start coding faster today.

Install Kite Now! It's Free

kite
Your programming copilot
Search Python Docs...
Install Kite for Free!

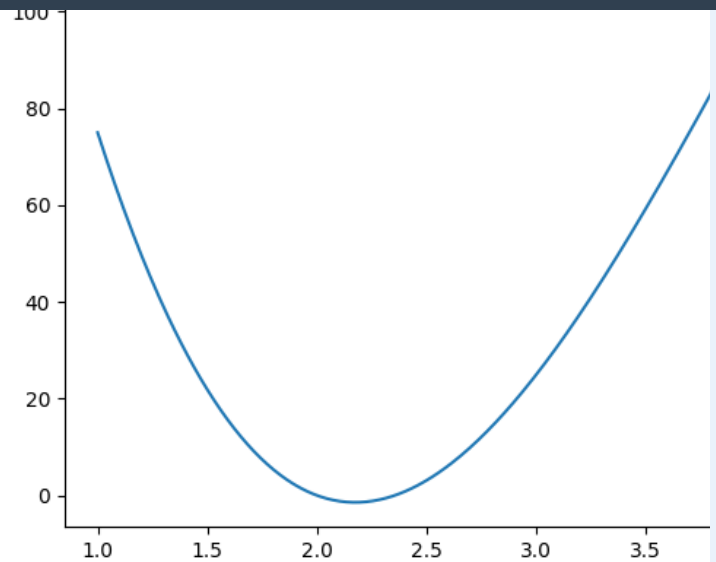



```
x_new = np.linspace(1, 4, 300)
a_BSpline = interpolate.make_interp_spline(x, y)
y_new = a_BSpline(x_new)

plt.plot(x_new, y_new)
```

NEW_PLOT.PNG

kite
Your programming copilot
Search Python Docs...
Install Kite for Free!



Company
Home
About Us
Careers
Privacy
Contact Us
Product
Watch a Demo
Editor Integrations
Programming Languages
Python Documentation
Resources
Blog
Help Center
Press
Stay in touch

kite
Your programming copilot
Search Python Docs...
Install Kite for Free!
email
Join the tribe
Sign In