

# Spiky Links:Revisiting Partial Edge Drawing in Graph Diagrams

Language:Python 3

The most hands-off way to draw different style of edges is using Windows 10. This can be done simply by the following user manual:

## 1、 Install visual studio code and required python package

Pay attention to set the environment path when installing python. We highly recommend the version of python over 3.9 and 2019 visual studio code.

## 2、 Install and import required python library

You need import numpy, json, turtle, copy, pycairo. Python contains some other useful packages, such as json, copy.

Here, we recommend you using pip to install some libraries instead of source installation.

## 3、 Install SVG plug-in component

This step is aimed to present drawing result and do some UI like zoom in so that you can see the strength of spiky links.

## 4、 Run drawing.py file

When you successfully run it, in order to get the expected drawing, you should input the key words like"convention","spike"and"straight" to test it.

In case you want to change the stickiness, you can change the value of "constant " into 0.2,0.8 and the critical value 0.5. in the main function.

## 5、 right click the svg file to check the drawings

After the forth step, it will increase a file such as "spike\_seperated.svg" in the root file. Then, right click it and you can see the final result.

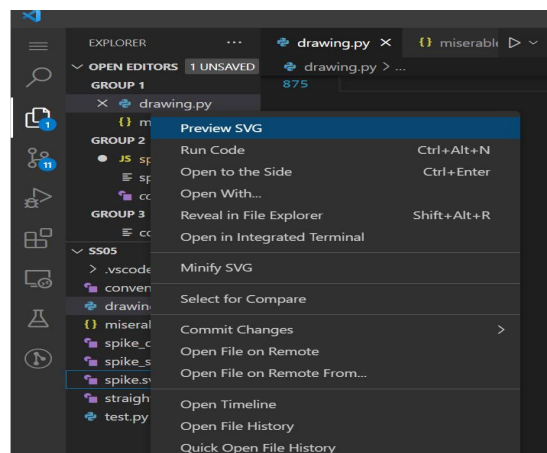


Fig. 1. Check the drawing result

Now, congratulations. You can see the beauty of spike and data visualization.