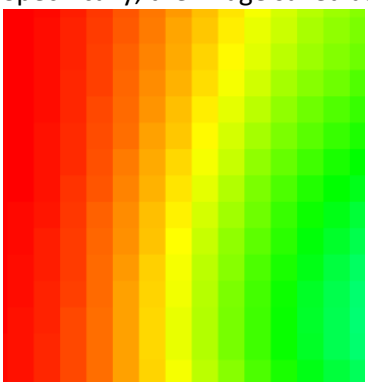
Notepad++

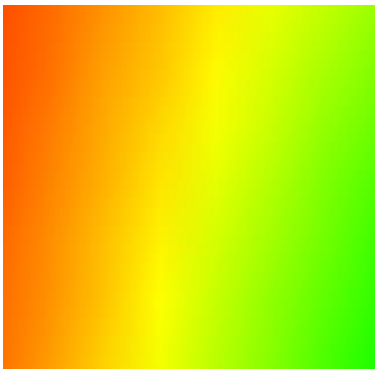
1. Set up “runPython” in Notepad++ after installing anaconda:
    a. Run -> Run (F5)
    b. S:\Anaconda\3\condabin\activate.bat base & S:\Anaconda\3\python.exe -i "$(FULL_CURRENT_PATH)"
    c. Save as “runPython”, pick an easy-to-use shortcut
    d. Now python can be run in Notepad++ with the shortcut created in step c.
2. The run scripts of Notepad++ are saved in `C:\Users\[username]\AppData\Roaming\Notepad++\shortcuts.xml`

Python

1. Show all available font families in Python:
```
import matplotlib.font_manager
from IPython.core.display import HTML
def make_html(fontname):
    return "<p>{font}: <span style='font-family:{font}; font-size: 24px;'>{font}</p>".format(font=fontname)
code = "\n".join([make_html(font) for font in sorted(set([f.name for f in matplotlib.font_manager.fontManager.ttflist]))])
HTML("<div style='column-count: 2;'>{}</div>".format(code))
```
2. Get immediate subfolders (next function):
```
import os
folder = '~'
sfL = next(os.walk(folder))[1]
```
3. Bitmap image can be converted to SMOOTH vector image easily using Python. The original image shown below can be smoothed by the following command:
```
import matplotlib.pyplot as plt
plt.imshow(data, interpolation='spline16')
```
Then we need to save the smoothed image (vector) in a vector image format (.pdf, .eps, .svg), using the following command:
```
plt.savefig(r'I:\Github\Python\ForFun\Peng\OP\OP_pdf.pdf',  format='pdf')
```
I have tested .pdf and .svg, and found that pyplot save .pdf does not work as expected. Specifically, the image saved as pdf file looks like this if you zoom in:



In contrast, if I save the figure as .svg file, the outcome looks like this:



And no matter how much I zoom in, the image is still smooth. This is not critical, but important in making high quality figures for publications. This is the link to the image where I compare original, pdf and svg savefig outcome.