Quarto Python Demo

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Table of contents

Executive Summary

Quarto is amazing! While you can generate PDFs from Jupyter Notebooks, the formatting options are extremely minimal and the result is not a polished product.

Quarto allows you to create a product based off of Pandoc that you can proudly present to stakeholders. This demo is outputting to PDF, where one of my favorite features is the ability to scale images without pixelation artifacts. Additionally, HTML, .docx, and various presenter files are also options. That list also includes a wealth of additional formats and the ability to publish dynamic content to websites.

All the code and files for this demo can be found here.

LaTeX Table Demo

Table 1: First 5 Data Entries

First Five Sunspot Counts	Months
58	1
62.6	2
70	3
55.7	4
85	5

Code Based Text Field

You can generate text to output to markdown through a code cell. You can even format text around it in a LaTeX formula. ($Average\ Sunspot\ Value = 82.1583\ sunspots\ per\ month$). An example $\sqrt{R_a^2} \neq 24.0000$. This is because R_a^2 is on a 0 to 1 scale.

Plot Demo

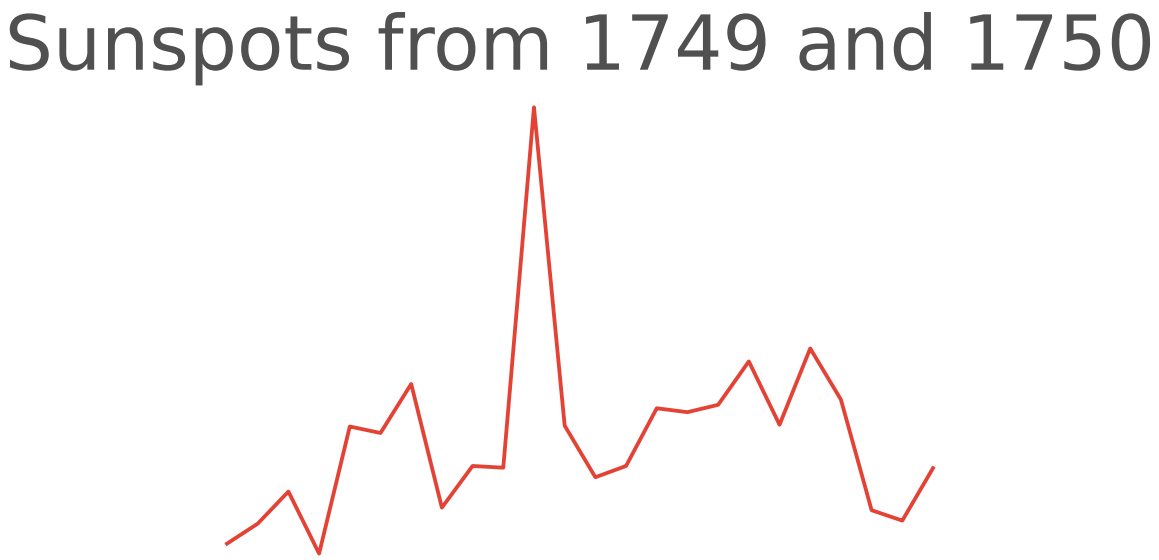

Figure 1: Jagged Lines in Original Line Chart

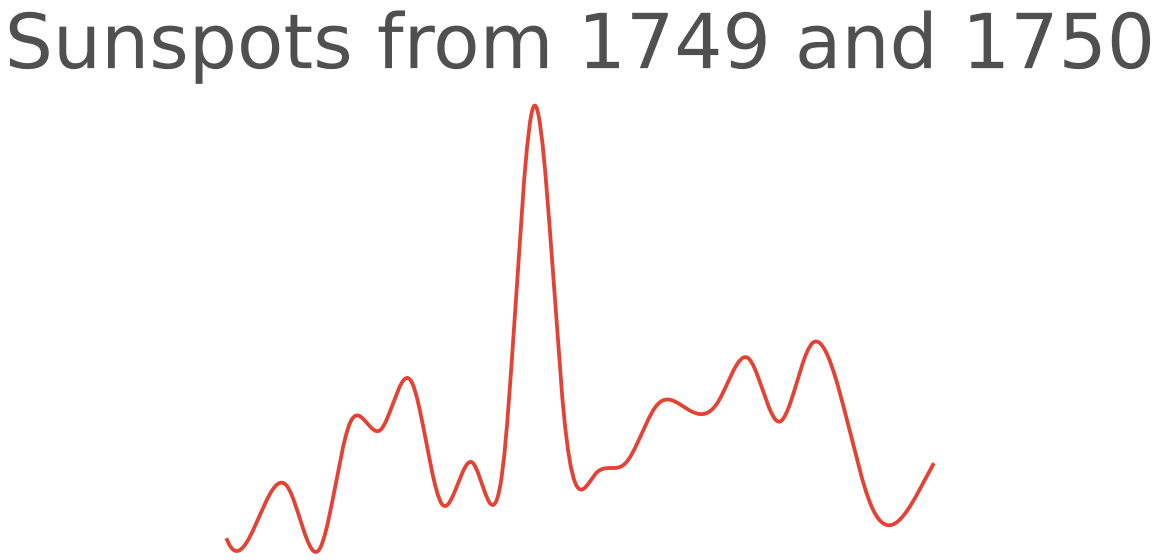

Figure 2: Smoothed Points from Interpolated Data

Format Comparisons

You can format text per Markdown standards, with LaTeX, and additional standards. Some common examples include *italics*, **bold**, superscript$^{\text{sup}}$, subscript$_{\text{submarine}}$, ~~strikethrough~~, and `code snippets`.

Markdwon headers follow standard levels. For example, the first 4 levels look like this:

Header 1

Header 2

Header 3

Header 4

Lists

Additionally, lists can be unordered or ordered.

- $H_0 : model\ slope = 0$
  - An extra
    - An additional extra
- $H_a : model\ slope \neq 0$
- Significance $\alpha = 0.1$

1. Ice cream
2. Cookies
3. Cake

Conclusion

Quarto is incredibly powerful. This is a quick example of how you can easily create a polished PDF report using Python as your programming language and choose multiple ways to cleanly present your findings.