The focus of week 27 on 3D visualizations gives me great enjoyment. Only wish I had more time to work on this.

I separated the 3D scatter plot and the 3D contour plot into separate figures. I am no subject matter expertise on this data, but in my view these are better as separate visualizations. There may a reason why these plots were placed together in the code sample, but I just don’t see it.

Also, I added a contour projection to the Surface plot, and if Scatter and Surface stayed within the same figure it would be too crowed in my opinion.

My process was to

1. Replaced pandas with polars
2. Separated 3D scatter and 3D surface plots
3. Put both plots into a simple dashboard with no callbacks
4. Replace hardcoded tickvals and ticklabels with list comprehensions
5. Updated the layout on the surface plot to show contour projection lines on the xy plane below the surface
6. Tweaked the height and the background color of 3 planes. The background color needed more contrast with the projection lines

Here is a screen shot with the Surface plot on the left (notice the projection on the bottom), and the Scatter3D on the right.

A screenshot of a computer

AI-generated content may be incorrect.

And here is the code: