**General Statement of AI Usage**

During the project, I occasionally used **ChatGPT** to help clarify technical concepts, suggest example code, and assist with troubleshooting small issues while working with the TF-IDF cosine similarity data.

I used AI in the same way I would consult a tutor or online documentation — to **support my learning**, not to complete the work for me. All data processing, filtering, visualization choices, and writing were done by me, and I ensured that I fully understood any code or explanation I incorporated.

**Examples of AI Assistance**

**Example 1 — Concept Clarification**

At one point, I asked ChatGPT to help me understand what a cosine similarity heatmap of TF-IDF vectors represents. The response helped me better interpret the meaning of high and low similarity scores across article pairs.

**Example 2 — Example Code for a Line Plot**

While building my **average similarity over time** visualization, I asked for an example of how to plot daily averages using Plotly. I then adapted the example code provided:

python

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daily\_avg = data1.groupby('date-1')['similarity'].mean().reset\_index()

fig\_line = px.line(

daily\_avg,

x='date-1',

y='similarity',

title='Average Cosine Similarity per Day',

markers=True

)

fig\_line.show()

**Example 3 — Preparing Data for Gephi**

To visualize article similarity as a network in Gephi, I asked how to structure a proper edge list CSV. Based on the guidance, I created an edge list with columns Source, Target, and Weight, and filtered it to include only strong similarities.

**Example 4 — Troubleshooting Gephi Visualization**

When first attempting to visualize my Gephi graph, I asked how to apply community detection (Modularity) and style the network appropriately. The guidance helped me apply Modularity Class coloring and layout settings to make the graph more readable.

**Final Notes**

I used AI as a **learning and support tool**, not as a substitute for doing the work myself.  
I carefully reviewed and understood all code and visualizations included in the project.  
I believe my use of AI complies with the project’s academic honesty expectations.