

Comparing the Performance of LLM-based Data Visualization Methods in Chat2VIS

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Abstract—This is the abstract.

Index Terms—component, formatting, style, styling, insert.

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REFERENCES

- [1] P. Maddigan and T. Susnjak, "Chat2VIS: Generating Data Visualizations via Natural Language Using ChatGPT, Codex and GPT-3 Large Language Models," in *IEEE Access*, vol. 11, pp. 45181-45193, 2023, doi: 10.1109/ACCESS.2023.3274199.
- [2] A. Narechania, A. Srinivasan and J. Stasko, "NL4DV: A toolkit for generating analytic specifications for data visualization from natural language queries", *IEEE Trans. Vis. Comput. Graphics*, vol. 27, no. 2, pp. 369-379, Feb. 2021.
- [3] YoloPandas. Python Package Index (PyPI), 2023, [online] Available: <https://pypi.org/project/yolopandas/>.
- [4] Luo, Yuyu, Jiawei Tang, and Guoliang Li. "nvBench: A large-scale synthesized dataset for cross-domain natural language to visualization task." *arXiv preprint arXiv:2112.12926* (2021).