Ryan Gross G47667332 CSCI 6917 Guided Research Grad I Week 5 Summary Report

As a refresher, my research topic is the application of Large Language Models (LLM) in prediction of maritime vessel trajectories.

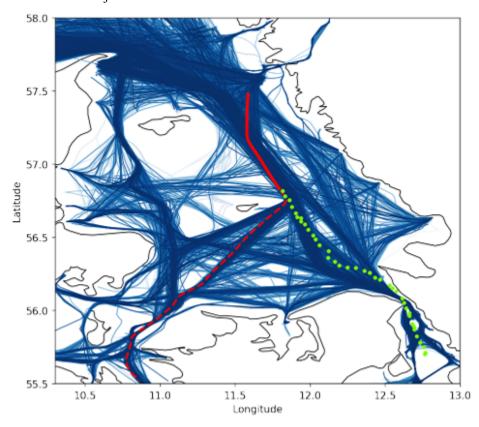


Figure 1. LLM input path in solid red, predicted output path in dotted green, and actual output path in dashed red.

This week I tried a few different things with prompt engineering using Open AI's paper [1] as a guide. I tried to use LAT, LON, SOG, COG as input, and train it to provide LAT, LON as output, but it performed horribly. So even though I don't need the LLM to predict SOG and COG, it is getting confused by having 4 features as input, and 2 as output. Other techniques from the paper did provide minor accuracy improvements, such as making sure there are line breaks between input and output.

References

[1] Brown, Tom B. et al. "Language Models are Few-Shot Learners." ArXiv abs/2005.14165 (2020): n. Pag.