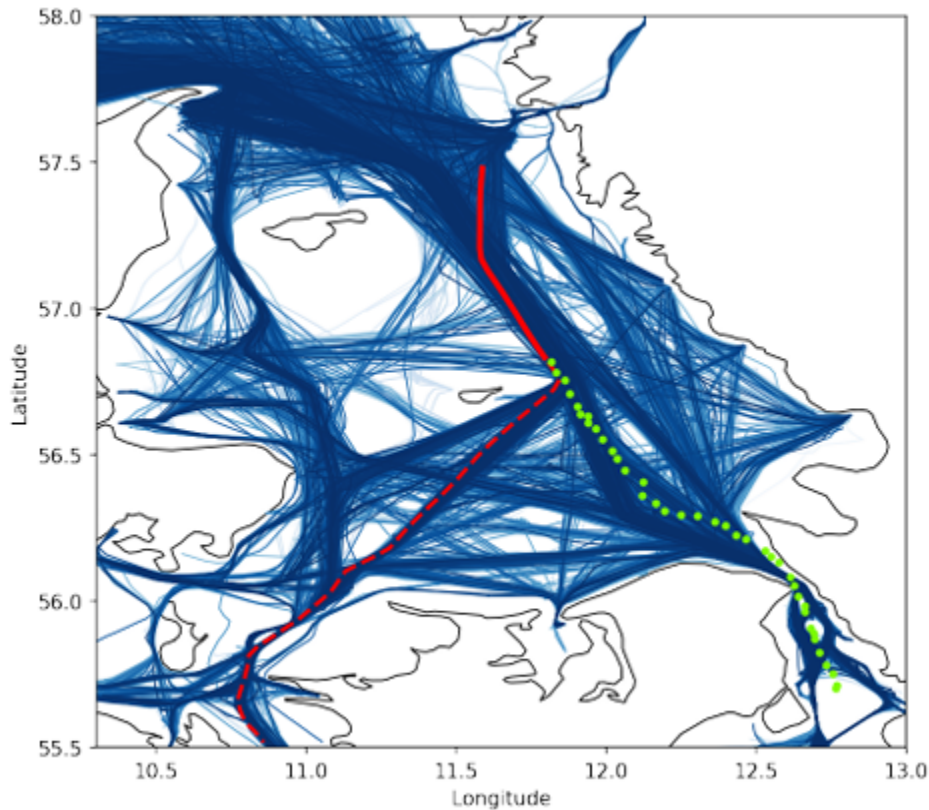Ryan Gross
G47667332
CSCI 6917
Guided Research Grad I
Week 1 Summary Report

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.

During the first week I gathered papers together, read them, and wrote some code to interact with Open AI's GPT services. In particular I read:

- Attention is All you Need [1]
- TrAISformer-A generative transformer for AIS trajectory prediction [2]
- Training language models to follow instructions with human feedback [3]
- Language Models are Few-Shot Learners [4]

The code simply makes calls to the Open AI services. I started by doing a simple hello world type of prompt to make sure the API calls worked.

References
[1] Vaswani, Ashish et al. "Attention is All you Need." NIPS (2017).

[2] Nguyen, Duong and Ronan Fablet. "TrAISformer-A generative transformer for AIS trajectory prediction." ArXiv abs/2109.03958 (2021): n. pag..

[3] Ouyang, Long et al. "Training language models to follow instructions with human feedback." ArXiv abs/2203.02155 (2022): n. Pag.

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