

## First project peer review

### 1. Problem statement of the project

The description of the problem is clear and well-written — due to high-quality LLM's nowadays it's hard to detect whether the text is written by LLM or a human.

### 2. Clearness of the main idea

The general view of the main idea is also clear — the authors want to solve classification problem (whether the text is written by LLM or a human) in the embedding space by treating it as a topological space and compute a magnitude function.

However, in my opinion, the authors need to specify more details by answering the following questions and suggestions:

- What is a topological space and how do use it in your task?  
Not every reviewer is an expert in topology. I would recommend to expand the “Introduction” or “Theoretical background” section by providing more accurate relation between some fundamental topological terms and your task.
- I would like to see more details about the magnitude function. There is some math stuff in the “Theoretical background” section but it seems to be incomplete and too short. For example, you start with the definition of  $Z_{\{A\}}$  matrix but don't name it. Also I don't understand, the following — if  $A$  is a “the finite metric space” then how  $A$  can be also a matrix?

Overall I would strongly recommend to introduce the notation, definitions, etc in a more formalized and structured way (See also comments from previous point).

- General style comments. Please, think about the titles of the sections. For example, in my opinion, “Theoretical

background” is not so informative I would suggest to call it “Method” and divide this section into subsections like “Notation”, “Magnitude function”, etc. Also, please, highlight important definitions, notations.

- I would suggest writing more details about the data rather than just make a reference to a Kaggle description.

### 3. A comparison with relevant methods

This section is done quite well. Table 1 is good.

### 4. Github

All is OK. However I would recommend using a Docker container rather than a Conda environment.