

## Instructions to Use this Tool

- 1 – Download the Solution.ipynb file, and open it in a Jupyter Notebook
- 2 – Make sure all the Dependencies & Imports are downloaded in the environment
- 3 – Recommended to make sure you are using GPU (MPS if on Apple Mac M1 Series) instead of CPU, if not, you may need to check your version of Pytorch to be correct. If You cannot get this to work, that's fine it can still use CPU, it will just be slower.
- 4 – Download the Datasets Folder and add to the root directory (Same place as your Jupyter Notebook Solution File).
- 5 – Do Step 4 again for Preprocessed\_BERT & Preprocessed\_Baseline
- 6 – Now please run the singular Jupyter Notebook cell and results will start to be produced.
- 7 – If your file paths are incorrect as you did not download correctly or manually did it, you can edit your file paths at the bottom of the Jupyter Notebook cell. (3 different paths).
- 8 – If your results are taking too long to be produced and you are running into issues, please reduce the NUM\_RUNS variable (Same location as the data paths, at the bottom of the cell), from 30 to a smaller number like 5.

Your Results will be in your root folder. You will have the following:

- Experiment Results Table - Data for each individual run (180 rows)
- AllTables - Average Results for each Dataset/Combined for both models (12 rows)
- Overall Table - Average Results for both models (2 rows)
- BoxPlot.png - F1 Score Box plot for each model & Dataset/Combined, showing variance across the 30 runs (12 Box Plots)
- Statistical\_testing\_results table - F1 Score Statistical Tests, Wilcoxon value & Paired t-Test value for each dataset/combined and each model alongside the averages for all 6 values (7 rows)