FINETUNING OF LLM – TO TALK LIKE MEERA

To start with this project, we had to first set up a “**Conda Environment**” using Anaconda or miniconda. For Beginners, I would suggest using “**Google Colab**” as it provides a good working environment with everything set up and ready to go.

The model used for this project was the “Falcon-7b Model” which is an open source LLM model available on “**Hudding Space**”. The link to it is as follows:

<https://huggingface.co/tiiuae/falcon-7b>

This model can be opened on “**Google Colab**” by the following link:

<https://colab.research.google.com/drive/1IqL0ay04RwNNcn5R7HzhgBqZ2lPhHloh?usp=sharing>

For this model to function effectively, I combined a word file of basic conversations between a user and Meera, and later parsed it into a “**CSV**” file using a simple python program. In this way I obtained a CSV file effectively capturing the talking style of Meera. I would like to add that this dataset was obtained by listening to various interviews of Meera and then using these prompts to let CHATGPT generate hundreds of such conversations with Meera which were then compiled into a word file.

**Running the Model:**

It can be either done on “COLAB” or using your own laptop if you have a decent CPU and GPU.

Either way I would be uploading the **“.ipynb**” file as well as the  **“csv**” file to my Github which can be accessed via the link below:

<https://github.com/Ali-Awais-Safdar/Falcon-7b-Talking-Like-Meera.git>

For running the model on COLAB which I highly recommend for beginners, first open the colab link I have provided in my repository and start running the code, prior to this make sure you have created a hudding space account and generated an “Access Token” which is required to access the given model on Colab. Run each cell separately and upload the dataset.csv file (which is available on my Github) to Colab. Train the model by running each individual cell and customize the prompts at the end to get unique responses by our model in style of Meera.

**Learning Outcomes:**

By implementing this model one would know the basic working of LLM’s, it can also start as a basic starting point for someone who wants to learn or implement Machine Learning algorithms. I would suggest running the model and get the desired prompts then see how each cell is functioning in the model, how the dataset is being trained by the model and tokenized by the given configurations. Once you know the answer to these questions, you can easily finetune any LLM model from scratch.

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