

A7: AIT-GPT

In this assignment, Create a chatbot, AIT-GPT, that specializes in answering questions related to the Asian Institute of Technology (AIT).

Note: You are ENCOURAGED to work with your friends, but DISCOURAGED to blindly copy other's work. Both parties will be given 0.

Note: Comments should be provided sufficiently so we know you understand. Failure to do so can raise suspicion of possible copying/plagiarism.

Note: You will be graded upon (1) documentation, (2) experiment, (3) implementation.

Note: This is a one-weeks assignment, but start early.

Deliverables: The GitHub link containing the jupyter notebook, a README.md of the github, and the folder of your web application called 'app'.

Task 1. Source Discovery - Based on 01-rag-langchain.ipynb, modify as follows:

- 1) Find all relevant sources related to AIT, including documents and websites. Ensure to source this dataset from reputable public databases or repositories. It is imperative to give proper credit to the dataset source in your documentation. Provide the resource links for easy reference. (2 points)
- 2) Design a Prompt Template for AIT-GPT to handle questions related to AIT. Develop a model that can provide gentle and informative answers based on the designed template. (1 points)
- 3) (Optional) Explore the use of other text-generation models or openai models to enhance AIT-GPT's capabilities.

Task 2. Analysis and Problem Solving

- 1) Analyze the model's performance in retrieving information. (2 points)
- 2) Address any issues related to the model providing unrelated information. (2 points)

Task 3. Chatbot Development - Web Application Development - Develop a web application that demonstrates a chatbot. (3 points)

- 1) The application should feature a chat interface with an input box where users can type messages.
- 2) Based on the user input, the model should generate coherent responses and also provide relevant source documents that support the generated response. For example, if the user types "Tell me about space exploration", the model might generate a concise summary along with links to related articles or documents.
- 3) Provide documentation explaining how the web application interfaces with the language model to generate coherent responses and retrieve source documents.

Note: You are encouraged to use the resources available at AIT, and ensure the chatbot provides accurate and relevant information about AIT.

As always, the example Dash Project in the GitHub repository contains an example that you can follow (if you use the Dash framework).

Good luck :-)