

Assignment 5

With point of departure in Chapter 6 in Hands-on Generative AI with Transformers and Diffusion Models, carefully fine-tune mistralai/Mistral-7B-v0.3 while manipulating key hyperparameters. For your best model, present the training-validation plot and completions for the prompts below:

```
prompts = [  
    "What is the capital of Germany? Explain why thats the case and if it  
was different in the past?",  
    "Write a Python function to calculate the factorial of a number.",  
    "A rectangular garden has a length of 25 feet and a width of 15 feet.  
If you want to build a fence around the entire garden, how many feet of  
fencing will you need?",  
    "What is the difference between a fruit and a vegetable? Give examples  
of each.",  
]
```

Attach your Jupyter notebook as an appendix. Include only code relevant to solving the problems.