

AAIPL - Team ACB

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Overview

Our solution focussed on 2 main things:

- To teach the model to reason, we needed to train it with correct question and answer sets
- To get precise answers, we needed the model to think in a coherent manner

Model finetuning

- We decided to use the supervised finetuning approach to teach the model to reason
- Focus on providing training set with maximum explanations for answers in order to help model understand reasoning
- Train set - 450 + 100 sets of questions and answers
- Train set generated by QWEN3 4B model, validated by a GPT model
- Trained for 15 epochs
- Checkpoint 800 considered ~approximately 6-7 iterations to prevent overfitting
- Same model used for questions agent as well as answer agent

Prompt Finetuning - Question agent

Prompt was modified to include the following:

- Examples of questions
- Level of difficulty to allow for fine control over precision in valid question set generation
- More difficult = more errors in question set, less difficult = less errors

Prompt finetuning - Answers agent

Prompt was modified to include the following:

Precise Instructions for focus on accuracy

Instructions to enforce logical thinking

Instructions to think in a stepwise manner, cross validate responses

Links

Github link: https://github.com/shreyassks/AAIPL_134_199_204_179

Huggingface link: https://huggingface.co/skshreyas714/AAPL_Team_ACB