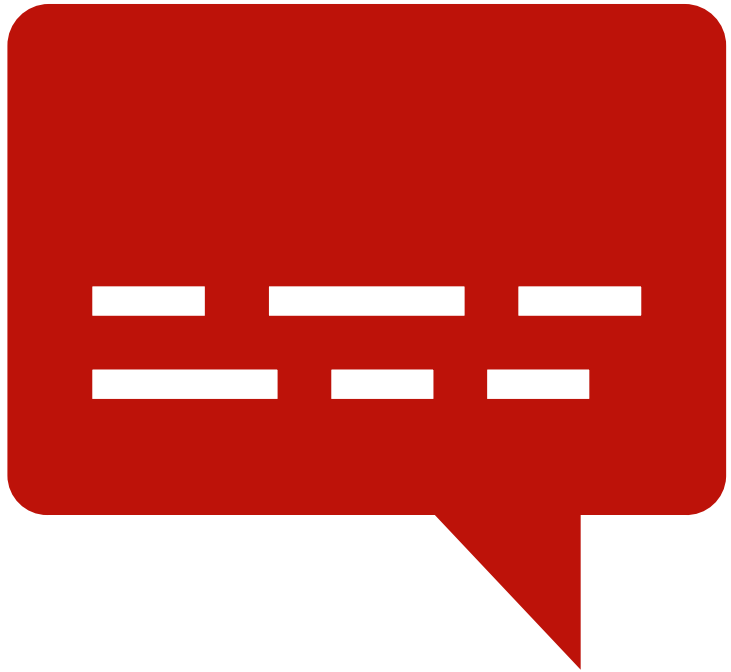
Task Types in PEFT Config for Legal Case Predictions

Best Practices for Legal Case Predictions

Overview of PEFT Task Types

PEFT optimizes large language models (LLMs) for specific tasks, including:

- Sequence Classification
- Token Classification
- Question Answering (QA)
- Text Generation
- Text-to-Text Tasks



Sequence Classification

Description:Classifies sequences into predefined categories.

Ideal for binary/multi-class predictions.

Use Case in Legal Predictions:Predicting legal case outcomes (e.g., guilty/not guilty).

Useful when analyzing case histories and predicting the court's decision.

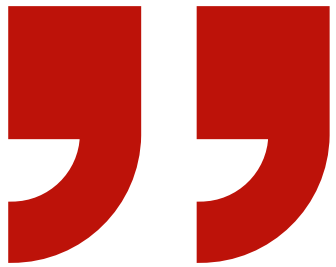
Why It's Best for Legal Predictions:Legal cases often involve a decision that can be classified.

Allows AI to predict outcomes based on facts presented.

Token Classification

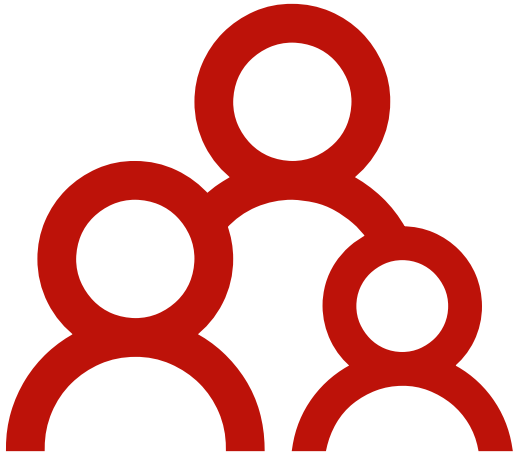
- Description:
  - Assigns labels to individual tokens in a text.
  - Commonly used for Named Entity Recognition (NER).
- Use Case in Legal Predictions:
  - Extracting key legal entities from documents (e.g., names, dates, case numbers).
  - Useful for identifying relevant sections of legal texts or evidence.
- Benefits:
  - Enhances document processing by automating entity extraction.
  - Simplifies analysis of large legal documents.

Question Answering (QA)



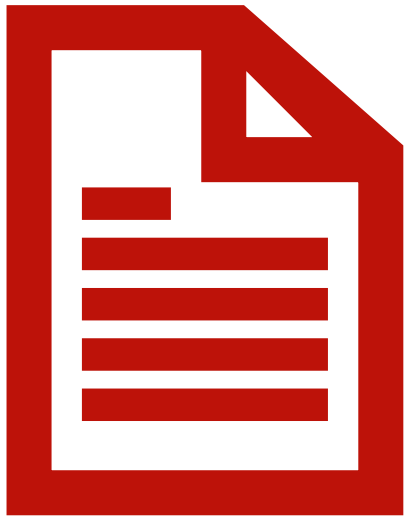
- Description:
  - Answers specific questions based on provided text.
  - Ideal for extracting precise information from large corpora.
- Use Case in Legal Predictions:
  - Retrieving information from case laws, statutes, or legal documents.
  - Can assist legal professionals by quickly answering case-related questions.
- Benefits:
  - Improves efficiency in legal research by answering legal queries.
  - Reduces manual effort in searching through documents.

Text Generation



- Description:
  - Generates coherent text based on a given input prompt.
- Use Case in Legal Predictions:
  - Automated generation of legal documents, summaries, and case briefs.
  - Helps draft initial versions of legal arguments or responses.
- Benefits:
  - Saves time on document drafting.
  - Ensures consistency in legal text generation.

Text-to-Text Tasks



- Description:
  - Converts one form of text into another (e.g., summarization, translation).
- Use Case in Legal Predictions:
  - Summarizing legal briefs, cases, or judgments.
  - Simplifies complex legal texts for easier analysis or presentation.
- Benefits:
  - Useful for creating concise versions of lengthy legal documents.
  - Improves accessibility of legal content by summarizing technical language.

Best Task Type for Legal Case Predictions

- Best Fit: Sequence Classification
  - Legal case predictions often require outcome classification (e.g., guilty/not guilty).
  - Sequence classification models are highly effective in structuring and predicting case results based on historical data.

Conclusion

Sequence classification, combined with LoRA fine-tuning, is the best task type for accurate legal case predictions.