Mini-Storyteller: GPT-2 Author Style Generator

Project Summary

Mini-Storyteller is a transformer-based text generation system that fine-tunes GPT-2 to create fictional short stories (up to 100 words) in the style of famous authors. This project focuses on Jack London and Lewis Carroll. It uses author-style tokens to condition output and generate unique narratives.

Goals

- Train a language model to reproduce the styles of Jack London and Lewis Carroll.
- Generate 100-word short stories from basic prompts.
- Demonstrate transformer ability to emulate tone, pacing, and language.

Methods

- Text data from Project Gutenberg (Jack London and Lewis Carroll).
- Prepended special tokens (e.g., <|JackLondon|>) to guide style.
- Fine-tuned GPT-2, GPT-2 Medium, and GPT-2 Large using HuggingFace Transformers.
- Training used varying batch sizes, learning rates, and max_length settings.
- Evaluated by perplexity and human readability.

Results & Conclusion

- GPT-2 base model produced short, coherent outputs.
- GPT-2 Medium and Large yielded more fluent, stylistically accurate stories.
- With CPU-only hardware, proper tuning led to 30-50 word outputs.
- Full 100-word length requires GPU acceleration or gradient accumulation.
- Future work: Longer training and improved generation via fine-tuned prompts.

Example Output

<|LewisCarroll|> The princess faced the dragon and made her way away. She tiptoed past a teacup storm, a dodo bird, and a checkerboard knight. "Oh dear," she said, "I?m terribly late for tea!"