Poetry Generation

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Overview

- Poetry obeys rhythmic and rhyme constraints, and the usage of the word includes more randomness than other text generation tasks
- In this work, we are training a language model to do **text generation tasks for poetry** in order to further explore the generation patterns.
- At the end, we are going to let the model use images and tags to generate poetry

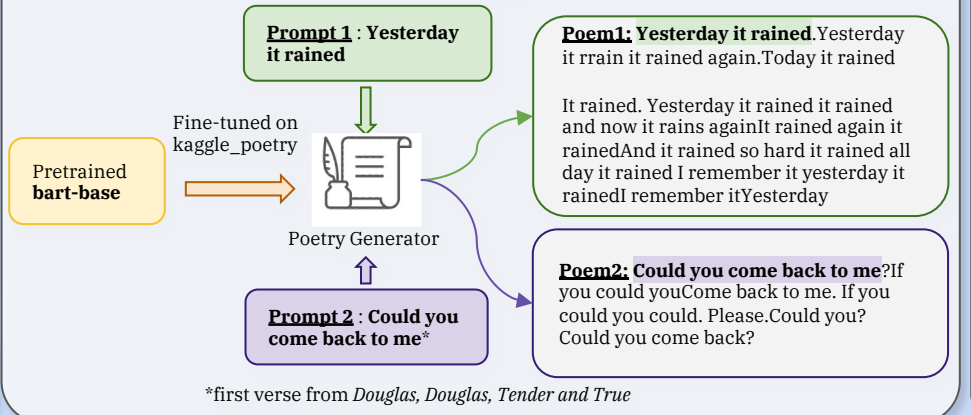
Background

- Prior works mainly focus on generating poems following certain meters and rhythm.
- This often includes with techniques to impose the meter and rhyme constraints at inference time like using finite-state automata to discard invalid candidates (Ghazvininejad et al., 2016) and using two different pretrained models separately for encoder and decoder (Hämäläinen et al., 2022).

Data

	Poems number	Features
kaggle_poetry	15652	Title, Author, Poems

Results

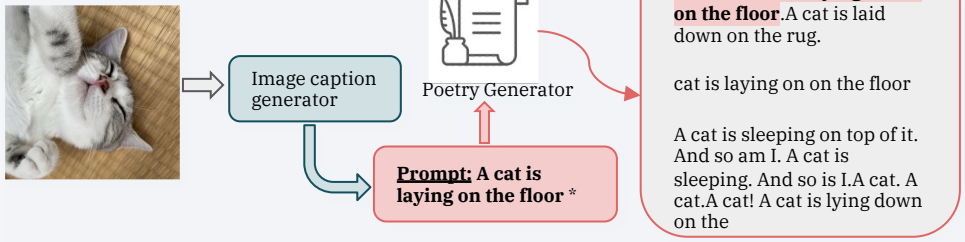


*first verse from *Douglas, Douglas, Tender and True*

Discussion

- The resulting poems of fine-tuning a pre-trained model is very repetitive, which is common in text generation tasks.
- Some conjectures think that it is caused by the model architectures (Holtzman et al. 2020; Vig 2018)
- Or the gap between sampling methods and the real human language (Holtzman et al. 2020)
- Or the trait of our language is repetitive (Fu et al., 2021)

Future Work



*generated by https://huggingface.co/spaces/SRDdev/Image-Caption

- Improve the model to generate prompts from images and use the prompts to write poems.
- Other pre-trained models can be tried to solve the repetition problems, as well as using two neural models for encoder and decoder. Also, rhythm and style of poems can be considered.