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Final Project

NARRATIVE TEXT GENERATOR USING RNN - LSTM

AGENDA

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2. WHO ARE THE END USERS
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PROBLEM STATEMENT

Generating coherent and engaging narrative text automatically poses a significant challenge. Traditional rule-based approaches, constrained by their lack of flexibility, struggle to capture the nuanced intricacies of storytelling. Consequently, writers, game developers, content creators, and chatbot developers encounter obstacles in efficiently producing compelling narrative content.

PROJECT OVERVIEW

Our objective is to develop a narrative text generator using RNN-LSTM to overcome the limitations of traditional methods. To achieve this, we plan to leverage recurrent neural networks to capture sequential dependencies in text data. By doing so, we aim to generate coherent narrative passages that surpass the capabilities of conventional approaches.

Key Components: Data preprocessing, RNN, LSTM, training, and text generation.

WHO ARE THE END USERS?

Our narrative text generator serves a broad spectrum of end users, encompassing writers seeking inspiration, game developers in search of dynamic storylines, content creators aiming for impactful social media or marketing campaigns, and chatbot developers striving for engaging conversations. Its potential applications span across fictional storytelling, interactive storytelling in games, generating social media posts or blog content, and enriching chatbot interactions with narrative elements.

YOUR SOLUTION AND ITS VALUE PROPOSITION

Solution:
A narrative text generator powered by RNN-LSTM architecture.

Value Proposition:
Enables rapid generation of high-quality narrative text. Sparks creativity by providing diverse and contextually relevant storylines.
Saves time for writers and developers by automating the content generation process.

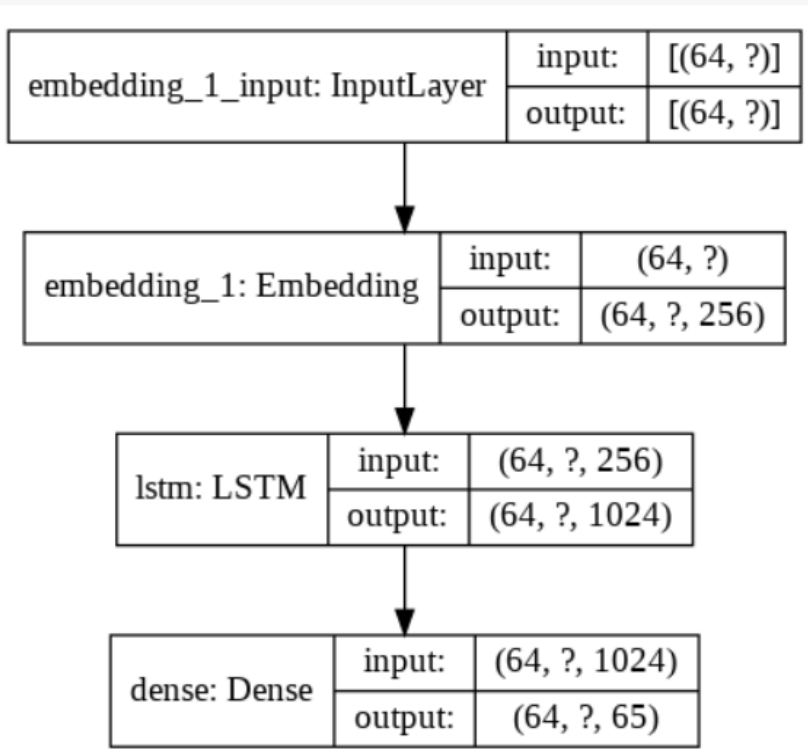
THE WOW IN YOUR SOLUTION

Unique Features:

- Mimics different writing styles, genres, and tones.
- Customizable prompts for generating genre-specific content.
- Interactive user interface for real-time text generation and customization.
- Integration with existing writing tools or platforms for seamless workflow.

MODELLING

Our architecture employs Recurrent Neural Networks (RNN) integrated with Long Short-Term Memory (LSTM) cells. These LSTM cells play a pivotal role in preserving long-term dependencies within the text data, enabling our model to capture intricate narrative structures effectively. Throughout the training process, we utilize Backpropagation through Time (BPTT) to iteratively update weights and optimize the model, thereby enhancing its ability to generate coherent text that resonates with the desired narrative style.



RESULTS

OUTPUT

```
ROMEO: God do not burden me.

GREMIO:
I want the king that murders writ upon your tongue
And born too supplict, but thanks
We should to him and nothing can I never my
brothers forbeard our words:
Confess which have wine, and provide thee
And see how did bestride our nobising duke,
Whose souls more pleased, that men are worst challenge into a farmet together
Let hate not so, for these own with him.
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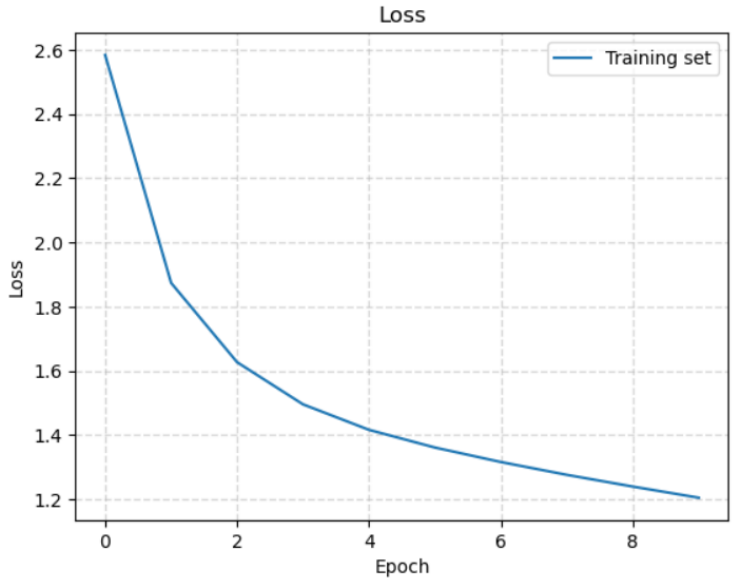

Our narrative text generator underwent rigorous evaluation using various performance metrics, including coherence, fluency, relevance to genre/style, and diversity of generated text.

Demo Link