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LSTM Homehelper Chatbot

REVIEW

HISTORY

Meets Specifications

Excellent work here! 🎉

You implemented a seq2seq model that is generating valid output for the questions. This is a very complex task and you handled it successfully. 🙌

If you are interested in language processing models, I suggest you read about the GPT models which are the state-of-art models for language processing. Here are some references:

- <https://towardsdatascience.com/understanding-gpt-3-in-5-minutes-7fe35c3a1e52>
- <https://www.altexsoft.com/blog/language-models-gpt/>
- <https://www.makeuseof.com/gpt-models-explained-and-compared/>

Best regards!

Implement a LSTM neural network for text generation

The encoder hidden state is accepted successfully into the decoder.

Very nice! The encoder module consists of two layers: an embedding layer and an LSTM layer. The outputs of the LSTM layer are in the encoder's forward function.

Here are some tricks to train an LSTM net: <https://medium.com/@yousufdata/6-tips-to-tweak-your-lstm-bilstm-15fd02685c8>

Decoder successfully turns the target string and encoder hidden state into an output.

Good job using the decoder to generate the outputs of the network. This [post](#) explains how the encoder-decoder architecture works.

The Seq2Seq can be called individually to instantiate the encoder and decoder models. The model can accept inputs for the encoder/decoder and produce a valid output.

The Seq2Seq model is a composite of the encoder and decoder modules.

I suggest you see this video explaining how seq2seq networks work: <https://www.youtube.com/watch?v=L8HKweZIOmg>

Train the LSTM neural network parameters.

Select an appropriate optimizer and loss function.

```
optimizer = torch.optim.SGD(model.parameters(), lr=learning_rate)
criterion = nn.NLLLoss()
```

The NLLLoss is implemented. Do you know the differences between NLLLoss and Cross Entropy Loss? Please check it [here](#).

Turn the sentence (source, target) training data into index vectors that are appropriate for the embedding layers of the model.

```
w2v = gensim.models.Word2Vec.load('brown.embedding')
```

The Gensim W2V model is used for the embedding layer.

Print the epoch and loss from the training loop.

The model is generating valid output for the questions. 🙌

Type 'exit' to finish the chat.

> which decade did beyonce become famous?

< graduation -

> when did beyonce become popular?

< september 2015 , 2011

> which artist did beyonce marry?

< jay z

> when did beyonce take a hiatus?

< january 2005

> what magazine rate beyonce as the most popular?

< yeezus - of

> what race was beyonce's father?

< paris

> in what year kanye premier?

< 1825

> what brand did kanye struck a deal with?

< adidas

> the fashion line in paris shown what review?

< coachella

> exit

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