UDACITY

Deploying a Sentiment Analysis Model

REVIEW

CODE REVIEW

HISTORY

Meets Specifications

Congratulations on completing the project 🎉
Happy learning ☺️

I hope this journey gave you lot of insights into deep learning. Wish you all the best for your future work.

Stay Safe :)

Files Submitted

The submission includes all required files, including notebook, python scripts and html files.

All files were included 👏🏽

Preparing and Processing Data

Answer describes what the pre-processing method does to a review.

Think : What improvements can you make to the preprocessing method?

The `build_dict` method is implemented and constructs a valid word dictionary.

The build_dict was implemented correctly 👏🏼

Tip : You can use python's in built Counter module for this.

Notebook displays the five most frequently appearing words.

Well done! This step also acts as a check to ensure that our build_dict was implemented correctly.

Answer describes how the processing methods are applied to the training and test data sets and what, if any, issues there may be.

Build and Train the PyTorch Model

The train method is implemented and can be used to train the PyTorch model.

Good job at implementing the train method correctly.
It shows that you are pretty comfortable in writing training loops using pytorch.

We are doing this subset check of training just so that we don't waste any time debugging on our cloud resources for the full dataset

The RNN is trained using SageMaker's supported PyTorch functionality.

```
Using device cpu.
Get train data loader.
Model loaded with embedding_dim 32, hidden_dim 200, vocab_size 5000.
Epoch: 1, BCELoss: 0.6685155593619054
Epoch: 2, BCELoss: 0.581961989402771
Epoch: 3, BCELoss: 0.5100197950187995
```

```
Epoch: 4, BCELoss: 0.4389370643362707
Epoch: 5, BCELoss: 0.38234638255469655
Epoch: 6, BCELoss: 0.36189360217172273
Epoch: 7, BCELoss: 0.3483050283120603
Epoch: 8, BCELoss: 0.3209679217971101
Epoch: 9, BCELoss: 0.3004867504445874
Epoch: 10, BCELoss: 0.2766666494461955
2021-05-04 03:03:46,168 sagemaker-containers INFO     Reporting training SUCC
ESS
```

The RNN was trained correctly.

Deploy the Model for Testing

The trained PyTorch model is successfully deployed.

```
predictor = estimator.deploy(initial_instance_count=1, instance_type='ml.m4.xlarge')
```

Unless you are expecting to process hundreds of reviews per second, we don't need a very powerful instance for inference, so ml.m4.xlarge is a good choice. 👍

Use the Model for Testing

Answer describes the differences between the RNN model and the XGBoost model and how they perform on the IMDB data.

The test review has been processed correctly and stored in the `test_data` variable.

The `predict_fn()` method in `serve/predict.py` has been implemented.

Deploying the Web App

The model is deployed and the Lambda / API Gateway integration is complete so that the web app works

(make sure to include your modified `index.html`).

Answer gives a sample review and the resulting predicted sentiment.

Well done!

Do test on sentences which are neutral or contain double negatives and see how the model behaves.

DOWNLOAD PROJECT

RETURN TO PATH

Rate this review

START