Experimental Report for dt_lgth:4350

Test on:

gru_neurons: [64, 128] epochs: [2, 4, 6]

Parameters

• batch_size: 300

validation_split : 0.2

dataset_path : ./datasets/

• learning_rate: 0.001

dropout_value : 0.5

dense_neurons: 128

• loss_function : sparse_categorical_crossentropy

dataset_length: 4350

percentage True Negatives: 21.4

• percentage names only: None

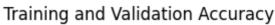
• percentage other tags : None

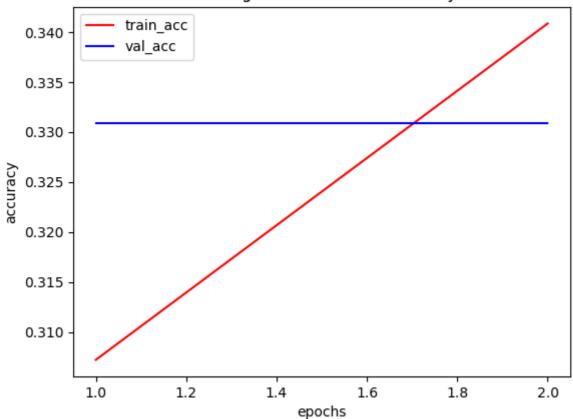
Vocab infos

Metric	In vocab	Out vocab
Total nb. of words	32054	23345
Nb. of unique words	3090	3078
Max seq. length	9	8
Vocab size	3089	3077
% True Negatives	24.1	24.1
% no title	None	None

GRU: 64 - Epochs: 2

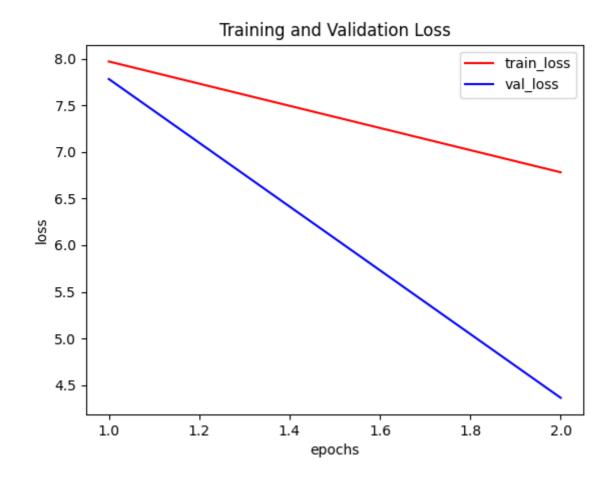
Learning curves





Training data Validation data

minimum	0.27	0.26
maximum	0.69	0.71
mean	0.51	0.5



	Training data	Validation data
minimum	0.27	0.26
maximum	0.68	0.71
mean	0.51	0.5

Fitting observations

	Undefitting	Good fitting	Overfitting
Status	Yes	Partially	No

Predictions

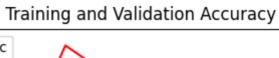
	Seq. to predict	Expected seq.	Predicted seq.
Seq.	<authors author:'john="" da'=""></authors>	author: 'John Da'	author: 'Mr. Luc Da'

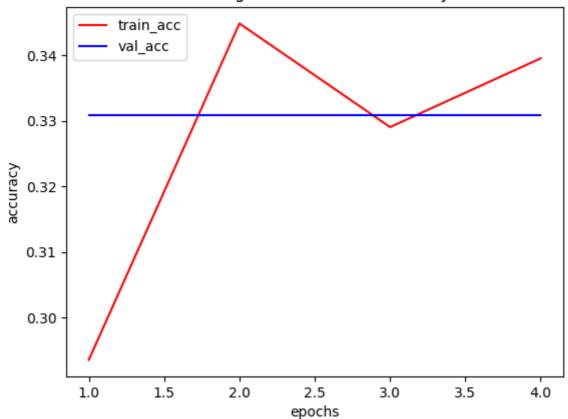
Bilan

For **64** neurons in GRU and **2** epochs, the training accuracy is gapped at **0.69**, the training loss at **0.68**. The model is **underfitted** and the prediction is correct at **56%**.

GRU: 64 - Epochs: 4

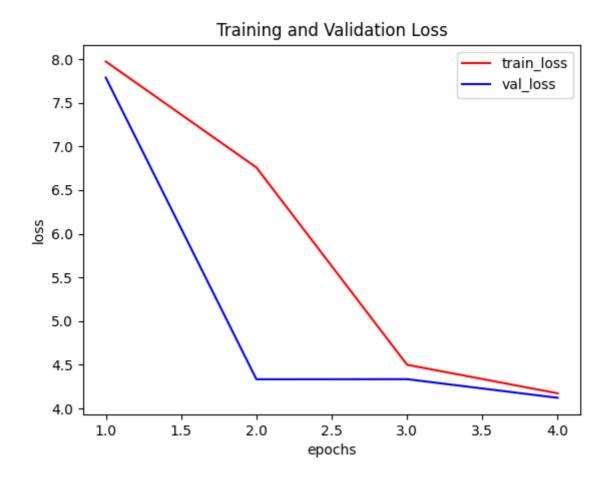
Learning curves





Training data Validation data

minimum	0.27	0.26
maximum	0.69	0.71
mean	0.51	0.5



Training data Validation data minimum 0.27 0.26 maximum 0.68 0.71 mean 0.51 0.5

Fitting observations

	Undefitting	Good fitting	Overfitting
Status	Yes	Partially	No

Predictions

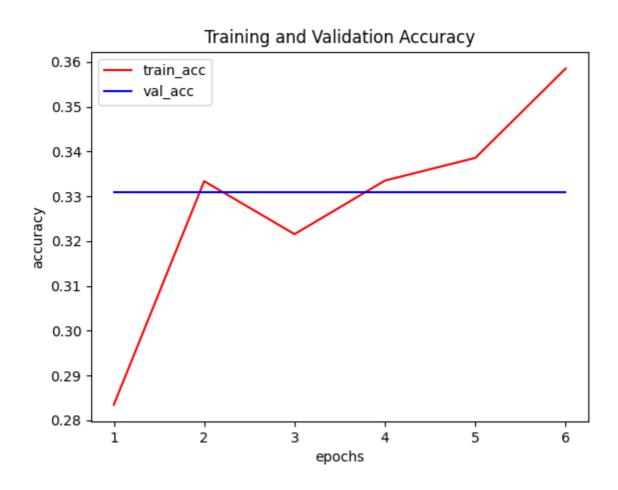
	Seq. to predict	Expected seq.	Predicted seq.
Seq.	<authors author:'john="" da'=""></authors>	author: 'John Da'	author: 'Mr. Luc Da'

Bilan

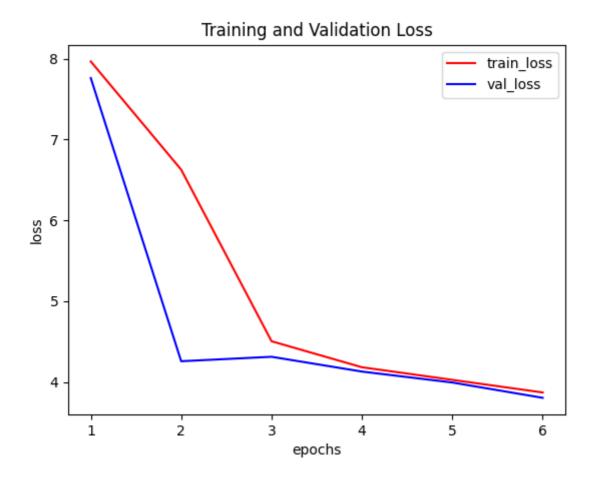
For **64** neurons in GRU and **4** epochs, the training accuracy is gapped at **0.69**, the training loss at **0.68**. The model is **underfitted** and the prediction is correct at **56%**.

GRU: 64 - Epochs: 6

Learning curves



	Iraining data	Validation data
minimum	0.27	0.26
maximum	0.69	0.71
mean	0.51	0.5



Training data Validation data ninimum 0.27 0.26

minimum	0.27	0.26
maximum	0.68	0.71
mean	0.51	0.5

Fitting observations

	Undefitting	Good fitting	Overfitting
Status	Yes	Partially	No

Predictions

	Seq. to predict	Expected seq.	Predicted seq.
Seq.	<authors author:'john="" da'=""></authors>	author: 'John Da'	author: 'Mr. Luc Da'

Bilan

For **64** neurons in GRU and **6** epochs, the training accuracy is gapped at **0.69**, the training loss at **0.68**. The model is **underfitted** and the prediction is correct at **56%**.

Model Summary

Model: "sequential_2"

Layer (type) Output Shape Param # embedding_2 (Embedding) (None, 8, 100) 309000

gru_4 (GRU) (None, 8, 64) 31872

dropout_6 (Dropout) (None, 8, 64) 0

gru_5 (GRU) (None, 8, 64) 24960

dropout_7 (Dropout) (None, 8, 64) 0

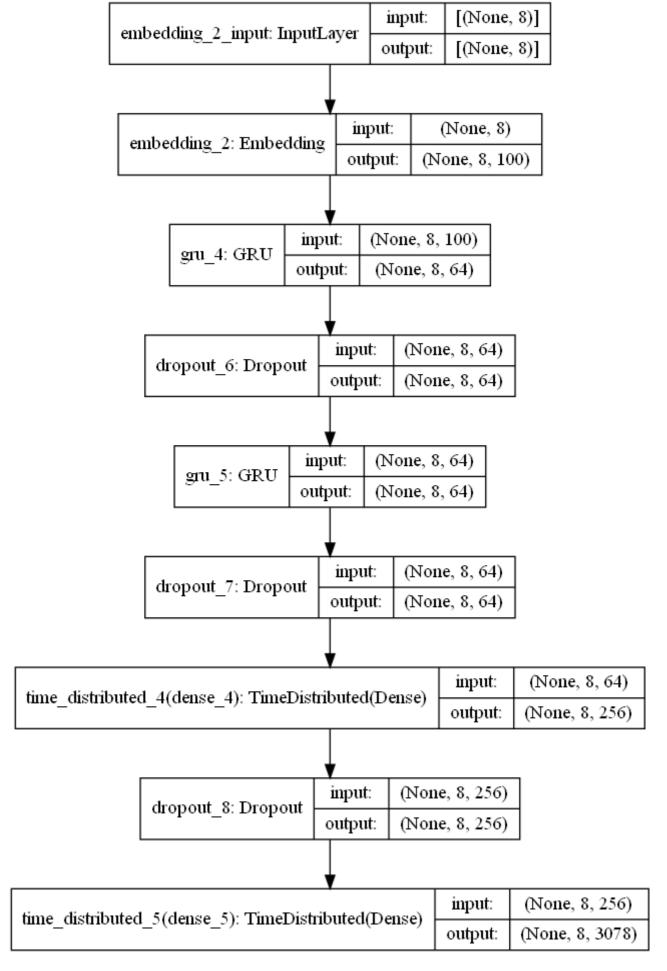
time_distributed_4 (TimeDist (None, 8, 256) 16640

dropout_8 (Dropout) (None, 8, 256) 0

time_distributed_5 (TimeDist (None, 8, 3078) 791046

Total params: 1,173,518 Trainable params: 1,173,518 Non-trainable params: 0

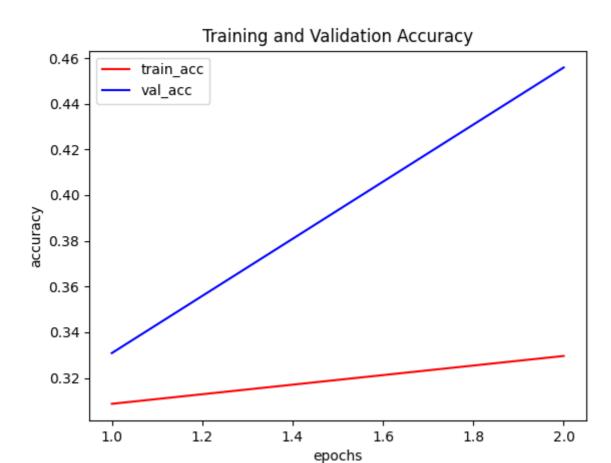
Plotted Model



9/25/2021

GRU: 128 - Epochs: 2

Learning curves



Training data Validation data minimum 0.27 0.26 0.69 0.71 maximum 0.51 0.5

mean



Training data	Validation	data
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minimum	0.27	0.26
maximum	0.68	0.71
mean	0.51	0.5

Fitting observations

	Undefitting	Good fitting	Overfitting
Status	Yes	Partially	No

Predictions

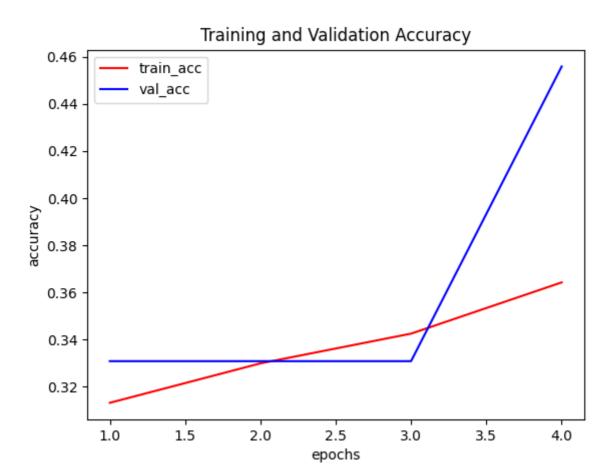
	Seq. to predict	Expected seq.	Predicted seq.
Seq.	<authors author:'john="" da'=""></authors>	author: 'John Da'	author: 'Mr. Luc Da'

Bilan

For **128** neurons in GRU and **2** epochs, the training accuracy is gapped at **0.69**, the training loss at **0.68**. The model is **underfitted** and the prediction is correct at **56%**.

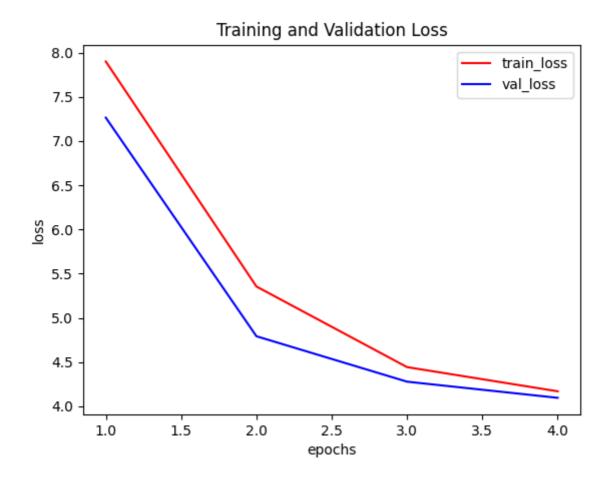
GRU: 128 - Epochs: 4

Learning curves



Training data Validation data

minimum	0.27	0.26
maximum	0.69	0.71
mean	0.51	0.5



minimum 0.27 0.26

 maximum
 0.68
 0.71

 mean
 0.51
 0.5

Fitting observations

	Undefitting	Good fitting	Overfitting
Status	Yes	Partially	No

Predictions

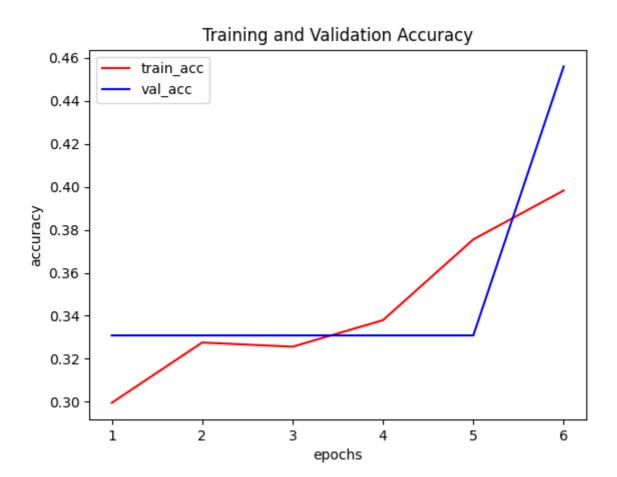
	Seq. to predict	Expected seq.	Predicted seq.
Seq.	<authors author:'john="" da'=""></authors>	author: 'John Da'	author: 'Mr. Luc Da'

Bilan

For **128** neurons in GRU and **4** epochs, the training accuracy is gapped at **0.69**, the training loss at **0.68**. The model is **underfitted** and the prediction is correct at **56%**.

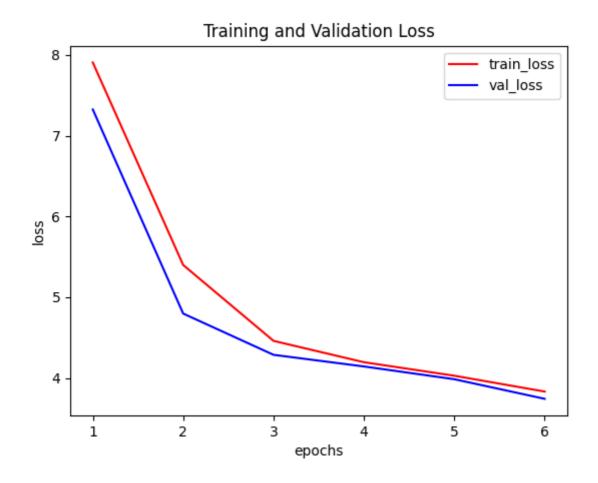
GRU: 128 - Epochs: 6

Learning curves



Training data Validation data

minimum	0.27	0.26
maximum	0.69	0.71
mean	0.51	0.5



Training data Validation data

minimum	0.27	0.26
maximum	0.68	0.71
mean	0.51	0.5

Fitting observations

	Undefitting	Good fitting	Overfitting
Status	Yes	Partially	No

Predictions

	Seq. to predict	Expected seq.	Predicted seq.
Seq.	<authors author:'john="" da'=""></authors>	author: 'John Da'	author: 'Mr. Luc Da'

Bilan

For **128** neurons in GRU and **6** epochs, the training accuracy is gapped at **0.69**, the training loss at **0.68**. The model is **underfitted** and the prediction is correct at **56%**.

Model Summary

Model: "sequential_5"

Layer (type) Output Shape Param # embedding_5 (Embedding) (None, 8, 100) 309000

gru_10 (GRU) (None, 8, 128) 88320

dropout_15 (Dropout) (None, 8, 128) 0

gru_11 (GRU) (None, 8, 128) 99072

dropout_16 (Dropout) (None, 8, 128) 0

time_distributed_10 (TimeDis (None, 8, 256) 33024

dropout_17 (Dropout) (None, 8, 256) 0

time_distributed_11 (TimeDis (None, 8, 3078) 791046

Total params: 1,320,462 Trainable params: 1,320,462 Non-trainable params: 0

Plotted Model

