RNN:

Layer (type) Output Shape Param #

=================================================================

simple\_rnn\_80 (SimpleRNN) (None, 1, 200) 65800

simple\_rnn\_81 (SimpleRNN) (None, 100) 30100

dense\_50 (Dense) (None, 1) 101

=================================================================

Total params: 96,001

Trainable params: 96,001

Non-trainable params: 0

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precision recall f1-score support

0 0.52 0.69 0.59 120

1 0.56 0.38 0.45 125

accuracy 0.53 245

macro avg 0.54 0.53 0.52 245

weighted avg 0.54 0.53 0.52 245

GRU:

Layer (type) Output Shape Param #

=================================================================

gru\_2 (GRU) (None, 1, 200) 198000

gru\_3 (GRU) (None, 100) 90600

dense\_51 (Dense) (None, 1) 101

=================================================================

Total params: 288,701

Trainable params: 288,701

Non-trainable params: 0

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precision recall f1-score support

0 0.57 0.53 0.55 120

1 0.57 0.62 0.59 125

accuracy 0.57 245

macro avg 0.57 0.57 0.57 245

weighted avg 0.57 0.57 0.57 245

LSTM:

Layer (type) Output Shape Param #

=================================================================

lstm\_4 (LSTM) (None, 1, 200) 263200

lstm\_5 (LSTM) (None, 100) 120400

dense\_52 (Dense) (None, 1) 101

=================================================================

Total params: 383,701

Trainable params: 383,701

Non-trainable params: 0

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precision recall f1-score support

0 0.49 0.74 0.59 120

1 0.52 0.27 0.36 125

accuracy 0.50 245

macro avg 0.51 0.51 0.48 245

weighted avg 0.51 0.50 0.47 245

Bi LSTM

Layer (type) Output Shape Param #

=================================================================

bidirectional (Bidirectiona (None, 1, 400) 526400

l)

bidirectional\_1 (Bidirectio (None, 200) 400800

nal)

dense\_53 (Dense) (None, 1) 201

=================================================================

Total params: 927,401

Trainable params: 927,401

Non-trainable params: 0

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precision recall f1-score support

0 0.50 0.62 0.55 120

1 0.52 0.39 0.45 125

accuracy 0.51 245

macro avg 0.51 0.51 0.50 245

weighted avg 0.51 0.51 0.50 245

Question # 2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | GRU (W\_Emb) | GRU(Word2vec) | GRU(fastText) | GRU (elmo) | GRU(glove) |
| Accuracy | 0.57 | 0.52 | 0.47 | 0.54 |  |
| Precision | 0.57 | 0.52 | 0.46 | 0.53 |  |
| Recall | 0.57 | 0.16 | 0.41 | 0.42 |  |
| F1 – Score | 0.57 | 0.25 | 0.43 | 0.47 |  |