|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Tuning results** | | | | | | |
| Number of units in LSTM layer | Embedding Dimension | Learning rate | Train  Loss | Validation Loss | Train  Accuracy | Test  Accuracy |
| 64 | 20 | 0.01 | 0.5008222389221192 | 3.7258299827575683 | 0.8981578946113586 | 0.669497613473372 |
| 64 | 20 | 0.001 | 0.5065907406806945 | 3.6674797664989125 | 0.898421049118042 | 0.669497613473372 |
| 64 | 20 | 0.0001 | 0.5003519201278687 | 3.699722888252952 | 0.8988157892227173 | 0.669497613473372 |
| 64 | 30 | 0.01 | 0.5134423875808716 | 3.6310723651539196 | 0.8988157892227173 | 0.669497613473372 |
| 64 | 30 | 0.001 | 0.5087630701065063 | 3.6819287386807527 | 0.8988157868385315 | 0.669497613473372 |
| 64 | 30 | 0.0001 | 0.511182005405426 | 3.665239429473877 | 0.8988157796859741 | 0.669497613473372 |
| 64 | 50 | 0.01 | 0.5058231687545777 | 3.683366385373202 | 0.8978947377204896 | 0.669497613473372 |
| 64 | 50 | 0.001 | 0.5102478408813477 | 3.6966113263910465 | 0.8988157820701599 | 0.669497613473372 |
| 64 | 50 | 0.0001 | 0.4983781397342682 | 3.7176015333695847 | 0.8988157844543457 | 0.669497613473372 |
| 128 | 20 | 0.01 | 0.47396977186203004 | 4.1430848121643065 | 0.899210524559021 | 0.669497613473372 |
| 128 | 20 | 0.001 | 0.4741345202922821 | 4.117505298961293 | 0.9001315879821777 | 0.6696172302419489 |
| 128 | 20 | 0.0001 | 0.4764213538169861 | 4.1218470486727625 | 0.8977631545066833 | 0.6622009526599537 |
| 128 | 30 | 0.01 | 0.4734188580513001 | 4.111656353690408 | 0.8989473748207092 | 0.6696172302419489 |
| 128 | 30 | 0.001 | 0.4729907488822937 | 4.111656353690408 | 0.8989473748207092 | 0.6696172302419489 |
| 128 | 30 | 0.0001 | 0.47355868101119997 | 4.136147325689143 | 0.9007894825935364 | 0.6696172302419489 |
| 128 | 50 | 0.01 | 0.4731629037857056 | 4.134229425950484 | 0.9010526347160339 | 0.6696172302419489 |
| 128 | 50 | 0.001 | 0.4746765422821045 | 4.127498921481046 | 0.8976315712928772 | 0.669497613473372 |
| 128 | 50 | 0.0001 | 0.4729781603813171 | 4.129414280978116 | 0.8985526299476624 | 0.6696172302419489 |
| 256 | 20 | 0.01 | 0.46796571850776675 | 4.321620802445845 | 0.9001315879821777 | 0.6696172302419489 |
| 256 | 20 | 0.001 | 0.4654586148262024 | 4.32614296132868 | 0.8998684215545655 | 0.6696172302419489 |
| 256 | 20 | 0.0001 | 0.46484880685806274 | 4.296801887858997 | 0.8986841988563538 | 0.6696172302419489 |
| 256 | 30 | 0.01 | 0.4666183662414551 | 4.308587273684415 | 0.8997368502616883 | 0.6696172302419489 |
| 256 | 30 | 0.001 | 0.4661624002456665 | 4.308587273684415 | 0.8997368502616883 | 0.6696172302419489 |
| 256 | 30 | 0.0001 | 0.4645297741889954 | 4.299180802431974 | 0.8993421006202698 | 0.6696172302419489 |
| 256 | 50 | 0.01 | 0.4658980190753937 | 4.330687271464955 | 0.899342098236084 | 0.6696172302419489 |
| 256 | 50 | 0.001 | 0.4660956299304962 | 4.3277471889149055 | 0.9007894706726074 | 0.6622009526599537 |
| 256 | 50 | 0.0001 | 0.467168025970459 | 4.330027701637961 | 0.9001315808296204 | 0.669497613473372 |