

Recurrent Neural Networks - Parts of Speech Tagger

Results

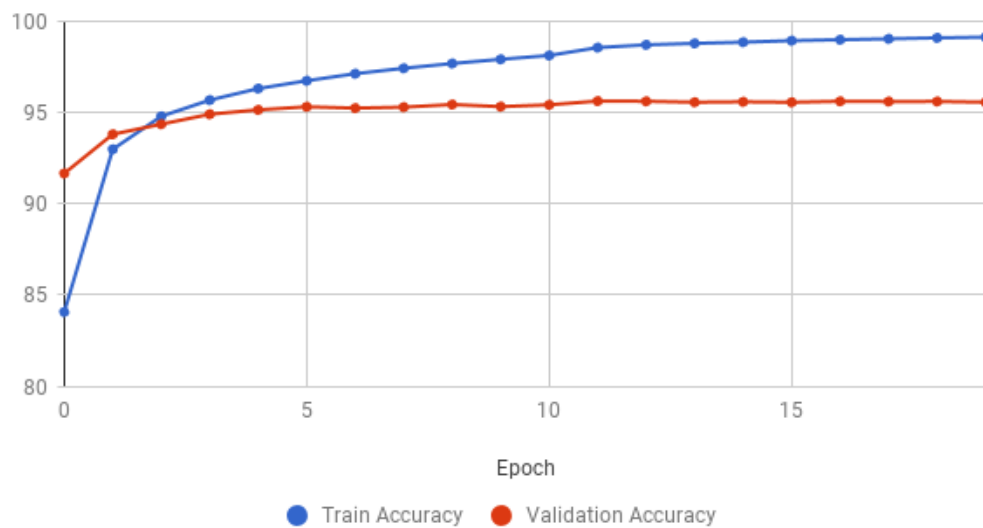
- with learning rate decay of by 0.5 every 10th iteration.

Experiment	Training Accuracy	Training Time (20 epochs)	Training TimeEpoch	Validation Time	Validation Accuracy
GRUCell	99.13	42m 7s	1m 59s	0m 3s	95.63
LSTMCell	99.08	41m 32s	1m 59s	0m 3s	96.12
RNNCell	98.25	45m 58s	2m 19s	0m 3s	95.29
Custom GRUCell	99.15	185m 31s	9m 48s	0m 12s	95.76

PLOTS

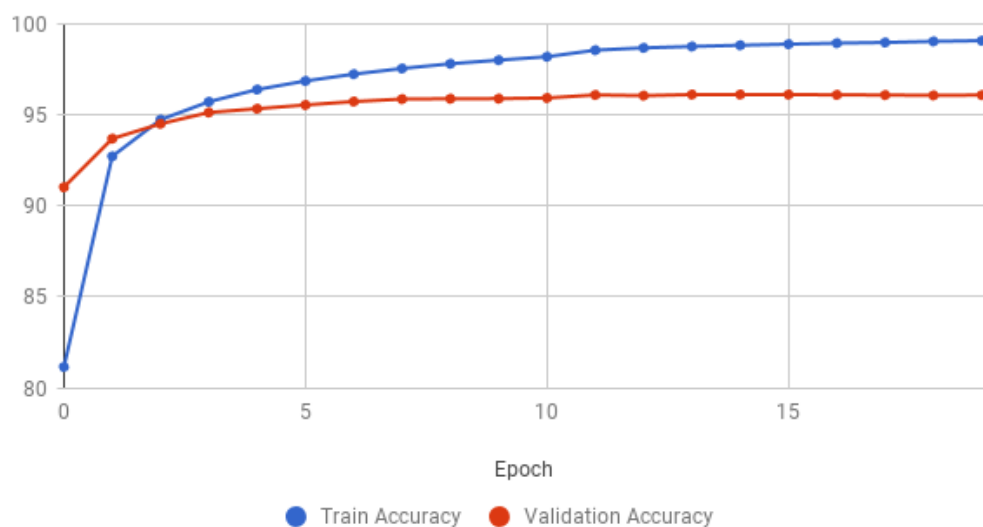
1. GRU Cell

GRUCell Accuracy



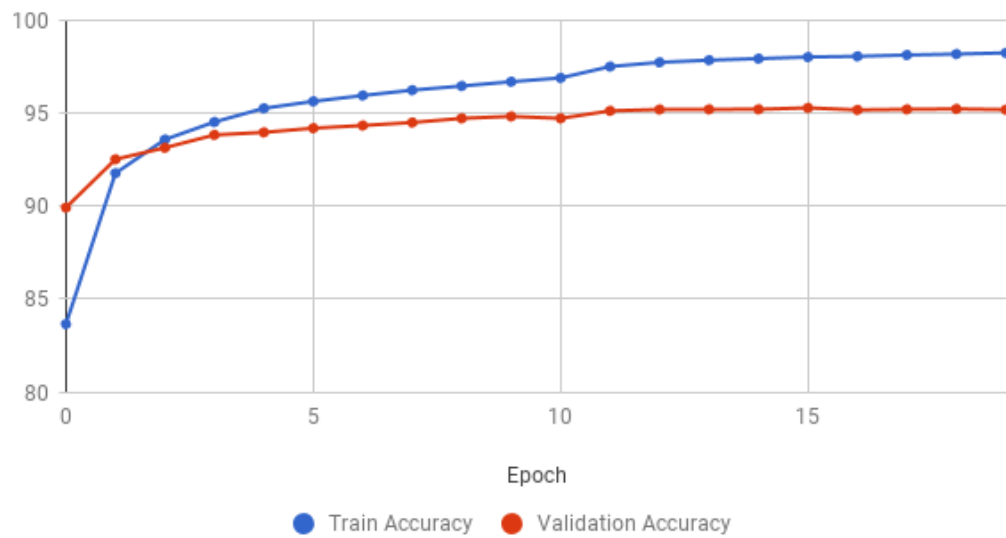
2. LSTM Cell

LSTMCell Accuracy



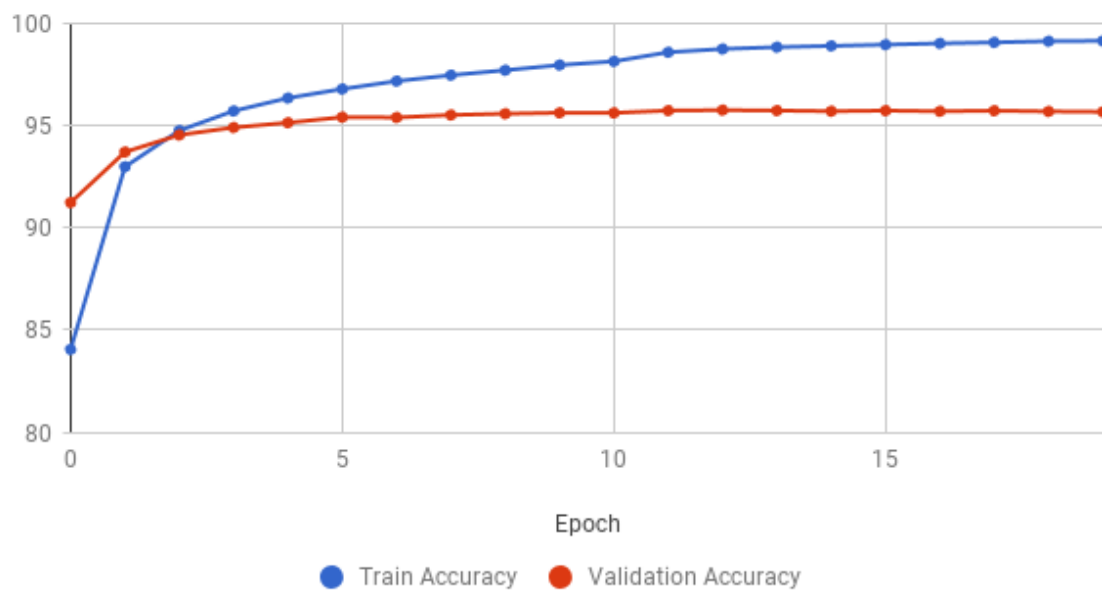
3. RNN Cell

RNNCell Accuracy



4. Custom GRU Cell

CustomGRUCell



Best Model

Validation Accuracy: 96.12%

Link: <https://drive.google.com/open?id=0By07sE0zY59RRnhVd1VjUURISWs>