MACHINE LEARNING MODEL

COMPARISON BASED ON SOME METRICS

Safa ORHAN

Computer Engineering Student

Istanbul Kultur University

Istanbul, Turkey

Eyüp USTA

Computer Engineering Student

Istanbul Kultur University

Istanbul, Turkey

Deep Learning Models

Activation = `'softplus', 'softsign', 'selu', 'elu', 'exponential', 'sigmoid', 'relu', 'tanh'`
Optimizers = `'sgd', 'rmsprop', 'adam', 'adadelta', 'adagrad', 'adamax', 'nadam', 'ftrl'`
Binary Loss = `'binary_crossentropy, 'hinge', 'squared_hinge', 'huber'`

Model Architecture

Phising Websites Dataset - Grega Vrbancic - data.mendeley.com - 24-09-2020

112 Features

DNN – 89.78 - 91.08 % **RNN – 94.51 – 93.44 %** **CNN – 90.33 - 90.09 %**

Phishing Legitimate Full – 48 Features

DNN – 94.10 - 94.93 % **RNN – 93.37 - 94.77 %** **CNN – 83.54 - 86.33 %**

Website Phishing - Auckland Institute of Studies – 9 Features

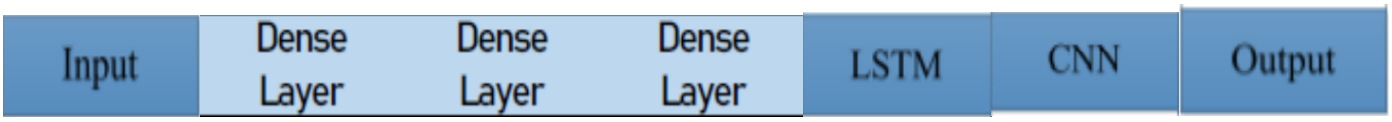
DNN – 35.31 - 36.33 % **RNN – 35.71 - 44.72 %** **CNN – 40.41 – 37.19 %**

Dataset.csv – 13 Features

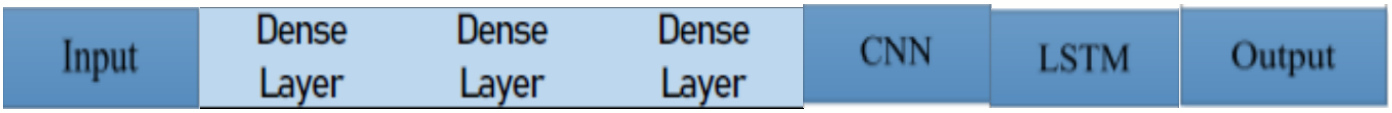
DNN – 86.60 – 90. 84 % **RNN – 87.64 – 91.03 %** **CNN – 86.60 – 90.04 %**

93.31 % - 93.74 %

96.32 % - 95.64 %



96.03 % - 95.12 %



97.26 % - 96.26 %

RNN + CNN

95.26 % - 94.84 %

CNN + RNN

86.48 % - 87.04 %