****

**YAPAY ZEKÂ**

**PROJE**

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**BİLGİSAYAR MÜHENDİSLİĞİ**

**2020/2021**

**İSKENDERUN TEKNİK ÜNİVERSİTESİ**

**MÜHENDİSLİK VE DOĞA BİLİMLERİ FAKÜLTESİ**

**Ocak 2021**

**1. Rapor Yapay Sinir Ağları**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Model | Transfer Function | loss | Epoch | Traning Function | Optimizer | Accuracy |
| 1 | (30-60-80) | Relu, swish, sigmoid | Categorical\_crossentropy | 80 | Sigmoid | Adam | 93.05 |
| 1 | (25-100-100-100) | tanh. elu, sigmoid, elu | mse | 65 | tanh | adam | 93.22 |
| 2 | (25-100-100-100) | tanh, elu, sigmoid, tanh | mse | 65 | tanh | adam | 92.89 |
| 3 | (25-100) | tanh, sigmoid | categorical\_crossentropy | 55 | elu | adam | 92.23 |
| 4 | (30-60-80) | Tanh, swish, elu | Poisson | 90 | Softplus | Adam | 93.05 |
| 5 | (25-50-70) | sigmoid, tanh, sigmoid | Mse | 55 | Elu | Adam | 91.97 |
| 6 | (25-50-70) | Elu, sigmoid, tanh | Mse | 80 | Elu | RMSprop | 92.00 |
| 7 | (25-50-70) | Sigmoid, elu, tanh | Mse | 80 | Softmax | Adam | 92.25 |
| 8 | (25-55-70) | Relu, tanh, elu | Binary\_crossentropy | 80 | Sigmoid | Adam | 92.23 |
| 9 | (30-60-80) | Linear, tanh, elu | Poisson | 90 | Sigmoid | Adam | 93.22 |
| 10 | (100-150-200) | Tanh, tanh, tanh | Mse | 800 | Sigmoid | Adam | 98.15 |
| 11 | (80-120-150) | Relu, elu, tanh | Binary\_crossentropy | 400 | sigmoid | adam | 94.54 |
| 12 | (90-130-150) | Relu, swish, tanh | Categorical\_crossentropy | 500 | Sigmoid | Adam | 96.69 |
| 13 | (90-130-150) | Relu, sigmoid, tanh | Categorical\_crossentropy | 300 | Elu | Sgd | 92.22 |
| 14 | (80-120-150) | Tanh, sigmoid, tanh | Mse | 300 | Linear | Sgd | 91.71 |
| 15 | (100-130) | Elu, sigmoid | Mse | 300 | Tanh | RMSprop | 92.86 |
| 16 | (100-130) | Sigmoid,tanh | Categorical\_crossentropy | 300 | Sigmoid | Adam | 93.11 |
| 17 | (120-180-200) | Relu, elu, tanh | Mse | 300 | Softmax | Adam | 94.14 |
| 18 | (120-140-180-180) | Elu, elu, tanh, sigmoid | Mae | 340 | Linear | Rmsprop | 92.16 |
| 19 | (100-110-120-150) | Relu,linear,tanh,simoid | Mse | 400 | Tanh | Rmsprop | 92.56 |
| 20 | (80-100-140-200) | Tanh,sigmoid,tanh,sigmoid | Mse | 500 | Swish | Adam | 98.03 |