U01\_Acc\_FreqD\_FDay.mat

1st data set

We have six different data sets and 10 users. When I get the 1st data set I meagre the 10 users and get that data in one file.

Summarize the result in that 1st data set.

2nd step Training data set

|  |  |
| --- | --- |
| Hidden layers | 20,10 |
| Validation | 70%, 15%, 15% |
| Parameters | 1000, 1e-6, 1e-7 |
| Training Accuracy | 63.89% |
| Test Accuracy | 53.70% |

3rd step Optimization data sets

|  |  |
| --- | --- |
| Validation Accuracy PCA | 79.63% |
| Test optimization Accuracy PCA | 72.22% |

4th step

Best Training and Testing Values

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 1st time | 2nd time | 3rd time | 4th time | 5th time |
| Hiddenlayers,  Validation,  Parameters | 20,10  70%, 15%, 15%  1000, 1e-6, 1e-7 | 30,15  70%, 15%, 15%  1000, 1e-6, 1e-7 | 20,10  70%, 15%, 15%  500, 1e-5, 1e-8 | 20,10  60%, 20%, 20%  1000, 1e-6, 1e-7 | 30,15  60%, 20%, 20%  500, 1e-5, 1e-8 |
| Training Accuracy | 98.81% | 82.54% | 89.29% | 89.81% | 78.24% |
| Testing Accuracy | 81.48% | 83.33% | 85.19% | 73.61% | 79.17% |

5th step

Optimization Validation and Test Accuracy

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 1st time | 2nd time | 3rd time | 4th time | 5th time |
| Hiddenlayers,  Validation,  Parameters | 20,10  70%, 15%, 15%  1000, 1e-6, 1e-7 | 30,15  70%, 15%, 15%  1000, 1e-6, 1e-7 | 20,10  70%, 15%, 15%  500, 1e-5, 1e-8 | 20,10  60%, 20%, 20%  1000, 1e-6, 1e-7 | 30,15  60%, 20%, 20%  500, 1e-5, 1e-8 |
| Validation Accuracy | 76.85% | 71.11% | 76.85% | 71.11% | 71.53% |
| Testing Accuracy | 71.48% | 68.15% | 71.48% | 66.94% | 65.97% |