

| Activation | Batchnorm | Dropout | Accuracy | Epochs |
|------------|-----------|---------|----------|--------|
| ELU        | Yes       | Yes     | 0.8321   | 50     |
| ELU        | Yes       | Yes     | 0.7786   | 20     |
| ReLU       | Yes       | No      | 0.7333   | 20     |
| ReLU       | No        | Yes     | 0.5342   | 20     |
| PreLU      | Yes       | Yes     | 0.7434   | 20     |
| Tanh       | Yes       | Yes     | 0.6813   | 20     |
| Sigmoid    | Yes       | Yes     | 0.6561   | 20     |

Architecture:

2D Convolution layer:

->32 filters

->3x3

->padding

BN(elu)

2D Convolution layer: 32 filters, 3x3

BN(elu)

Max pooling 2x2

Dropout: 0.1

2D Convolution layer: 64 filters, 3x3

BN(elu)

2D Convolution layer: 64 filters, 3x3

BN(elu)

Max pooling 2x2

Dropout: 0.1

Fully connected layer: 512 units

BN(elu)

Dropout: 0.3

Fully connected layer: 10 units (for classification)

Batch normalisation (activation: soft max)

Optimiser: Adam(learning\_rate=0.001)

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BN(elu) = Batch normalisation (activation: ELU)