

CNN Baseline Report

A Convolutional Neural Network is designed to process the four digits and predict their sum. The architecture consists of:

- **Convolutional Layers:** Two layers with ReLU activation layers and max pooling to extract features from the input
- **Fully Connected Layers:** A flattening layer followed by two dense layers
- **Output Layer:** A single neuron outputting the predicted sum

Training Details:

- **Loss Function:** MSE loss is used to minimize the difference between predicted and actual sums
- **Learning Rate:** 0.001

The model is trained for 10 epochs. Preliminary results indicate that the CNN model cannot learn the sum without adequate thresholding/clustering of the 4 digits.