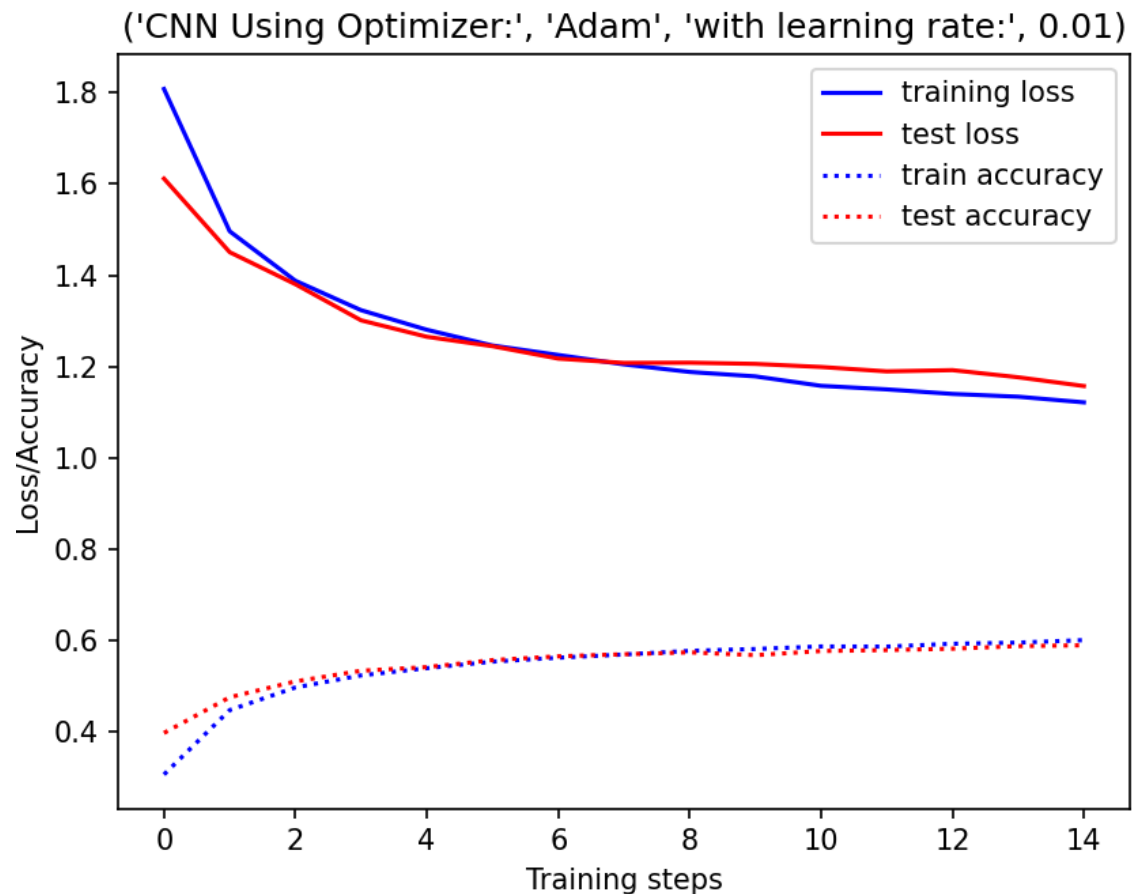# First Configuration

## Adam Variant



CNN:
2 Conv2D Layers, all with kernel size 3, padding = same, activation = relu:
      Block 1: Two layers, 16 filters
      MaxPooling2D: Pool Size 2
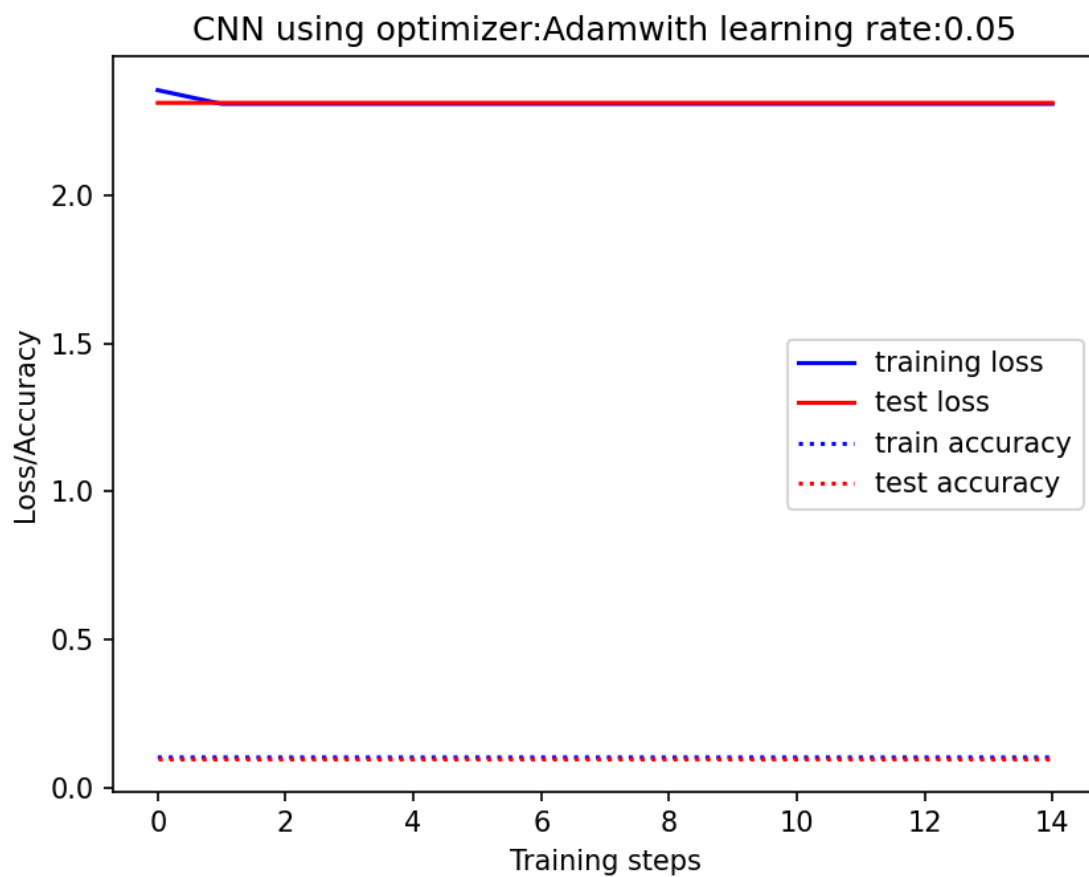      Block 2: Two layers, 32 filters
      GlobalAvgPool2D
      Dense Output Layer: Softmax activation

Optimizer: Adam with learning rate 0.01

# Adjusted Learning Rate



CNN:
2 Conv2D Layers, all with kernel size 3, padding = same, activation = relu:
    Block 1: Two layers, 16 filters
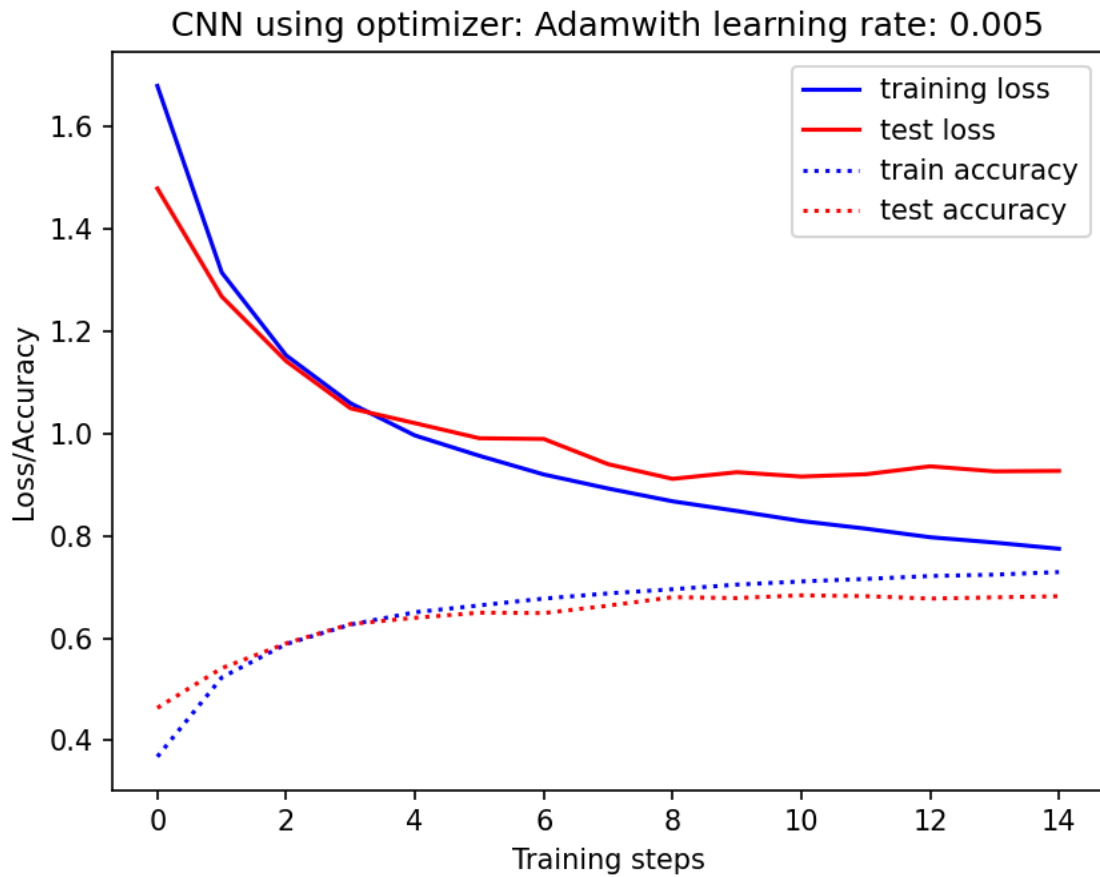    MaxPooling2D: Pool Size 2
    Block 2: Two layers, 32 filters
    GlobalAvgPool2D
    Dense Output Layer: Softmax activation

Optimizer: Adam with learning rate 0.05

# Adjusted Learning Rate 2

## CNN using optimizer: Adamwith learning rate: 0.005



CNN:
2 Conv2D Layers, all with kernel size 3, padding = same, activation = relu:
    Block 1: Two layers, 16 filters
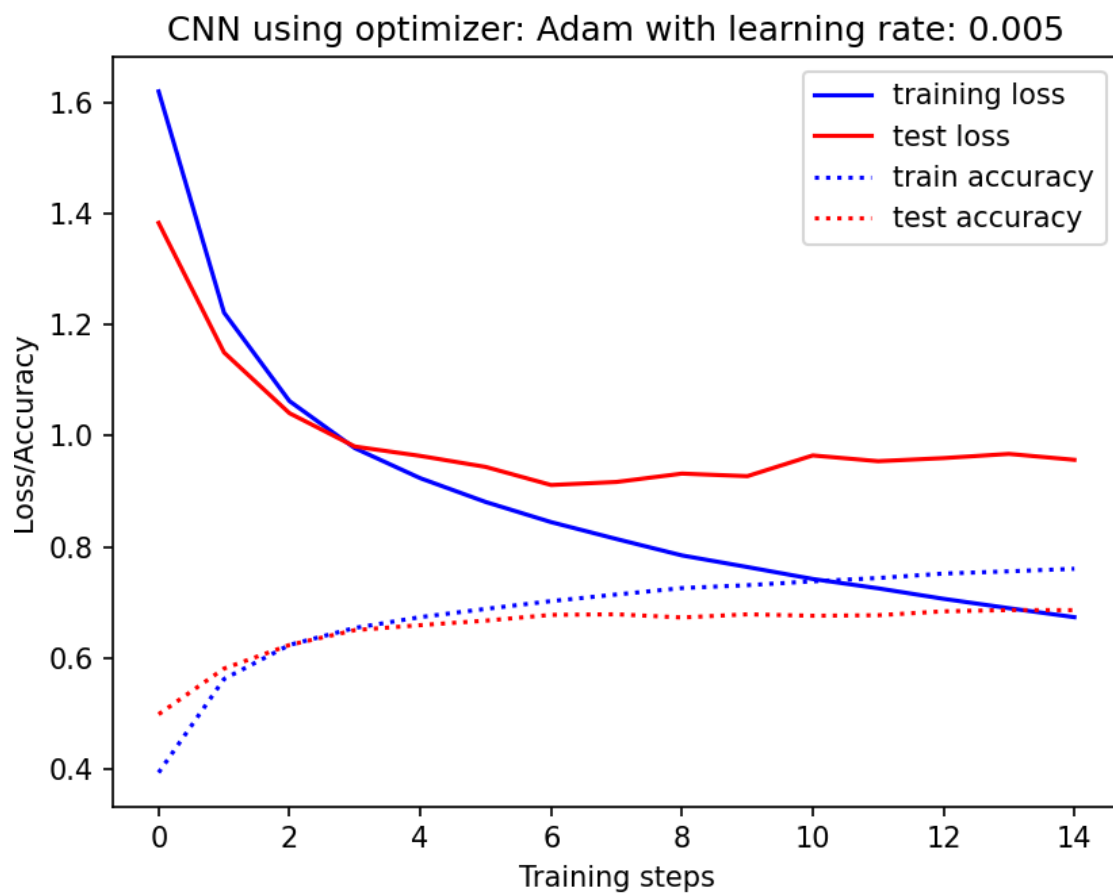    MaxPooling2D: Pool Size 2
    Block 2: Two layers, 32 filters
    GlobalAvgPool2D
    Dense Output Layer: Softmax activation

Optimizer: Adam with learning rate 0.005

# Adjusted Layer Sizes



CNN:
2 Conv2D Layers, all with kernel size 3, padding = same, activation = relu:
      Block 1: Two layers, 24 filters
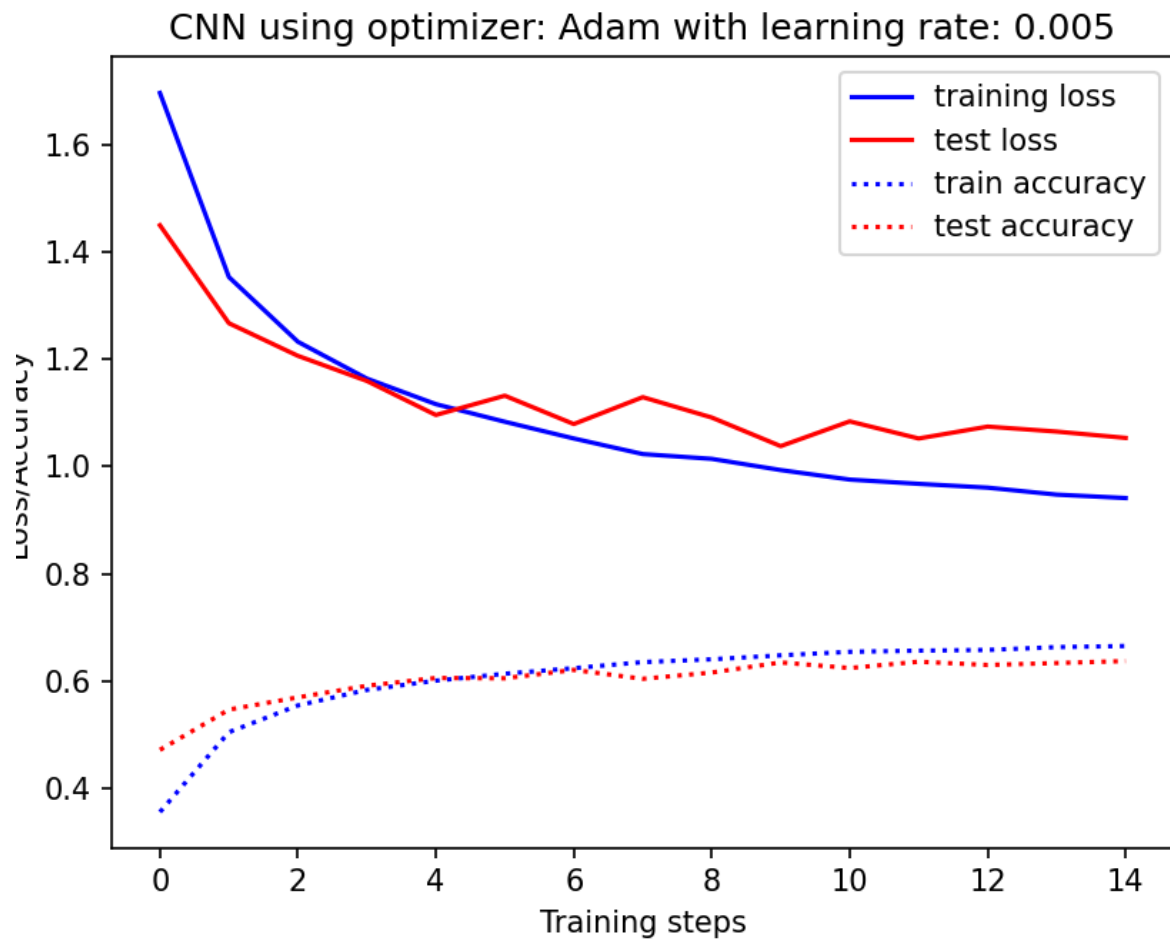      MaxPooling2D: Pool Size 2
      Block 2: Two layers, 48 filters
      GlobalAvgPool2D
      Dense Output Layer: Softmax activation

Optimizer: Adam with learning rate 0.005

# Adjusted Layer Sizes 2

## CNN using optimizer: Adam with learning rate: 0.005



3 Conv2D Layers, all with kernel size 3, padding = same, activation = relu:
      Block 1: Two layers, 8 filters
      MaxPooling2D: Pool Size 2
      Block 2: Two layers, 16 filters
      MaxPooling2D: Pool Size 2
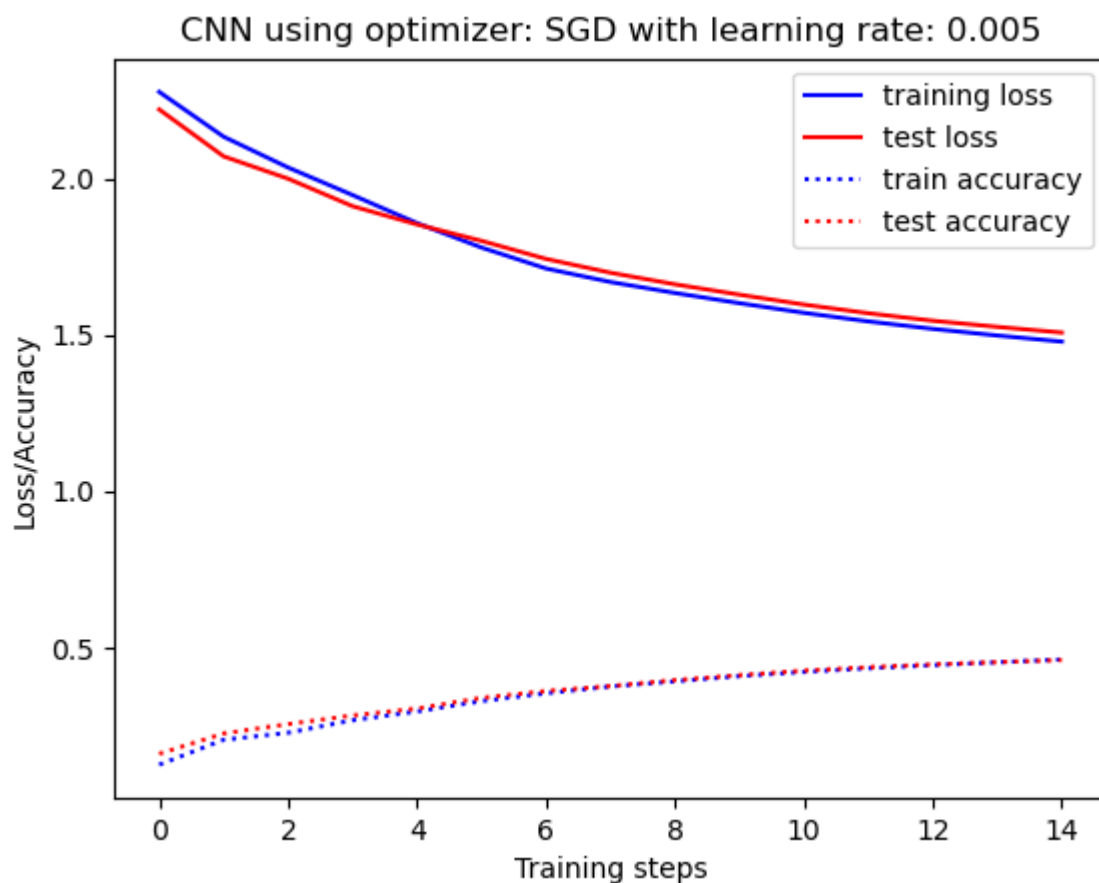      Block 3: Two layers, 32 filters
      GlobalAvgPool2D
      Dense Output Layer: Softmax activation

Optimizer: Adam with learning rate 0.005

# Second Configuration

## SGD Variant



CNN:
2 Conv2D Layers, all with kernel size 3, padding = same, activation = relu:
      Block 1: Two layers, 16 filters
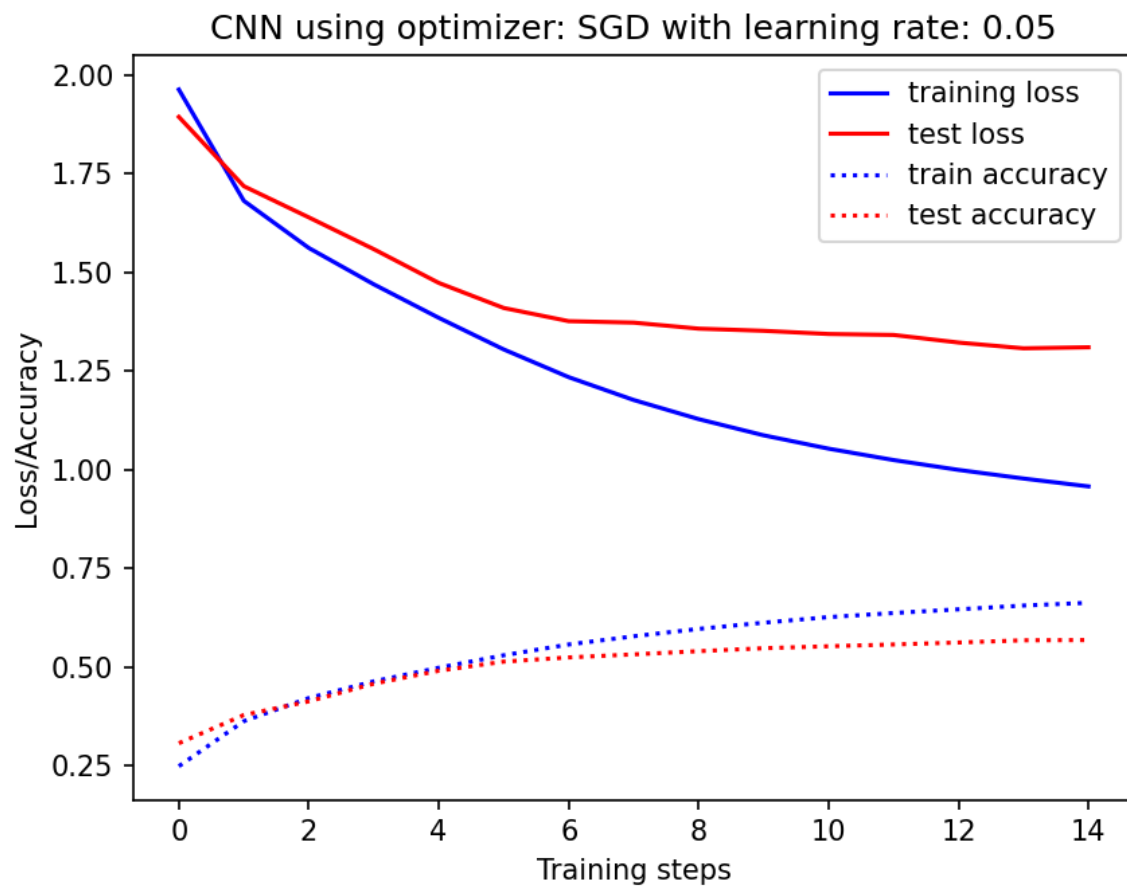      MaxPooling2D: Pool Size 2
      Block 2: Two layers, 32 filters
      GlobalAvgPool2D
      Dense Output Layer: Softmax activation

Optimizer: SGD with learning rate 0.005

# Adjusted Learning Rate



CNN:

2 Conv2D Layers, all with kernel size 3, padding = same, activation = relu:

      Block 1: Two layers, 16 filters
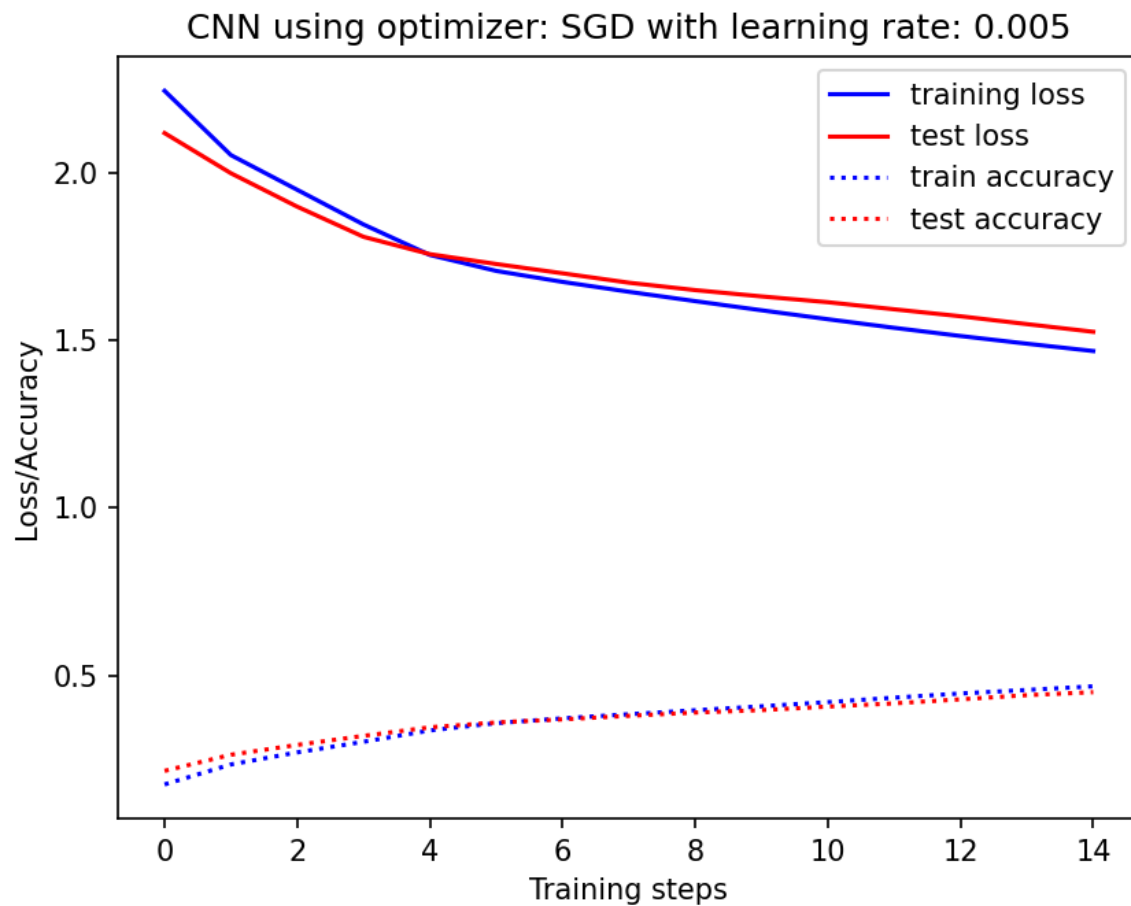
      MaxPooling2D: Pool Size 2

      Block 2: Two layers, 32 filters

      GlobalAvgPool2D

      Dense Output Layer: Softmax activation

Optimizer: SGD with learning rate 0.05

# Adjusted Layer Sizes

## CNN using optimizer: SGD with learning rate: 0.005



CNN:
2 Conv2D Layers, all with kernel size 3, padding = same, activation = relu:
      Block 1: Two layers, 24 filters
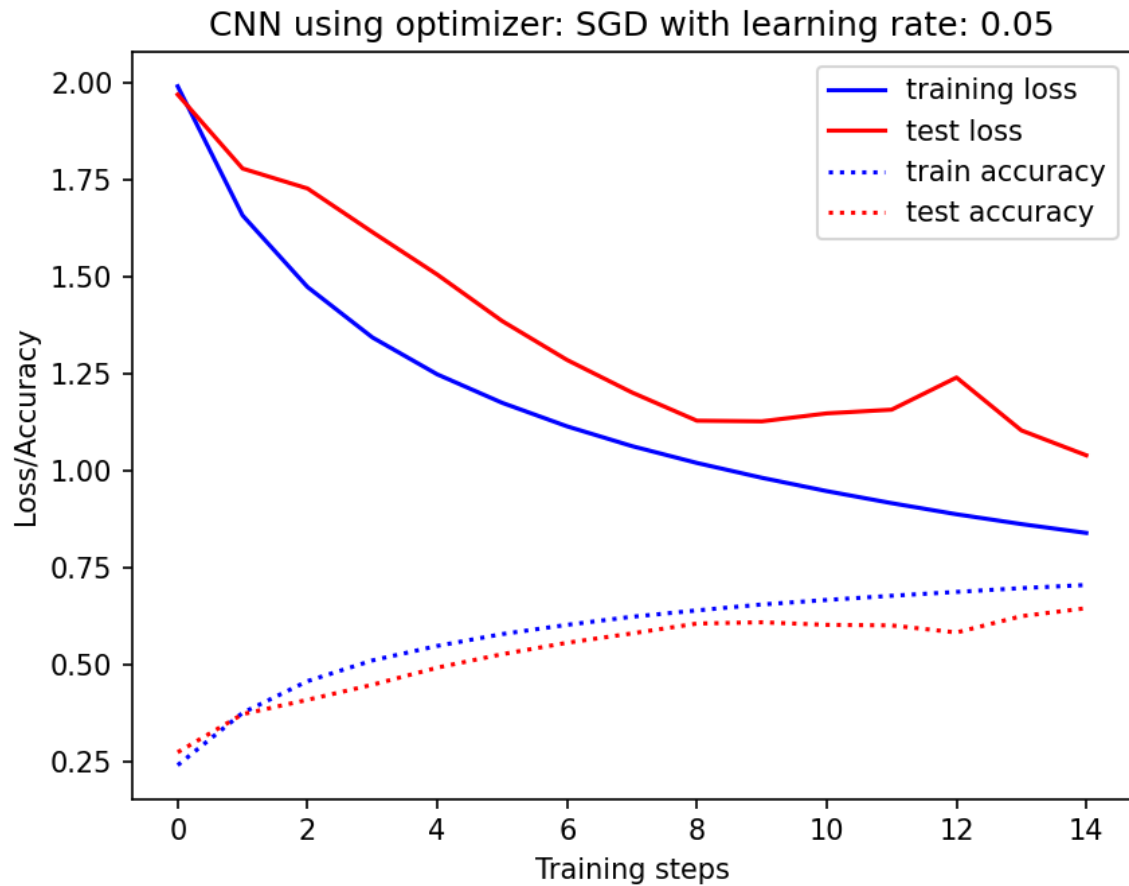      MaxPooling2D: Pool Size 2
      Block 2: Two layers, 48 filters
      GlobalAvgPool2D
      Dense Output Layer: Softmax activation

Optimizer: SGD with learning rate 0.005

# Adjusted Layer Sizes 2



3 Conv2D Layers, all with kernel size 3, padding = same, activation = relu:
        Block 1: Two layers, 8 filters
        MaxPooling2D: Pool Size 2
        Block 2: Two layers, 16 filters
        MaxPooling2D: Pool Size 2
        Block 3: Two layers, 32 filters
        GlobalAvgPool2D
        Dense Output Layer: Softmax activation

Optimizer: SGD with learning rate 0.05