

Intro to AI lab 1

1.

Accuracy 9734/10000 (97%)

Precision: 0.9734

Sensitivity/Recall: 0.9733

2.

Recognition accuracy: 20.00% (only 6 out of 30 images correctly classified)

1. **Strong bias toward predicting "8".**
2. **Secondary bias toward "0".**
3. **Widespread confusion:** Errors occurred across almost all digit classes

Examples of Specific confusions.

- All three samples of digit "7" were misclassified as "8"
- All three samples of digit "9" were misclassified (two as "8", one as "2")
- All three samples of digit "6" were misclassified (two as "3", one as "0")

Possible cause.

- **Different writing styles:** Personal handwriting likely differs significantly from the MNIST dataset's characteristics
- **Image quality and preprocessing:** Custom images may have different stroke thickness, contrast, or positioning

3.

- **Recognition Accuracy: 97.05%**
- **Precision: 97.04%**
- **Sensitivity (Recall): 97.02%**