

Classification Project

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Classification

Dataset Information

- 70,000 small images of digits handwritten. There are 70,000 images with 28×28 pixels, and each image has 784 columns or features.
- Each column or feature value represents the pixel's intensity, from 0 (white) to 255 (black).

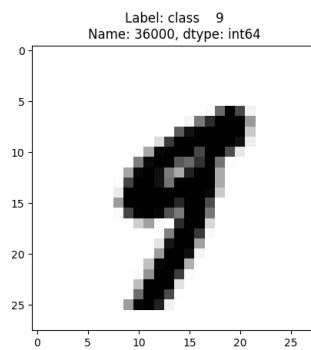


Figure 1: A digit from the dataset with its corresponding value from the label column.

Confusion Matrix

		Predicted		
		Negative	Positive	
Actual	Negative	8 3 9	6	TN (green) / FP (red)
	Positive	5 5 5	5 5 5	FN (red) / TP (green)

Precision (e.g., 3 out of 4) ↑

← Recall (e.g., 3 out of 5)

Precision

$$P = \frac{\text{True Positives}}{\text{True Positives} + \text{False Positives}}$$

Recall

$$R = \frac{\text{True Positives}}{\text{True Positives} + \text{False Negatives}}$$