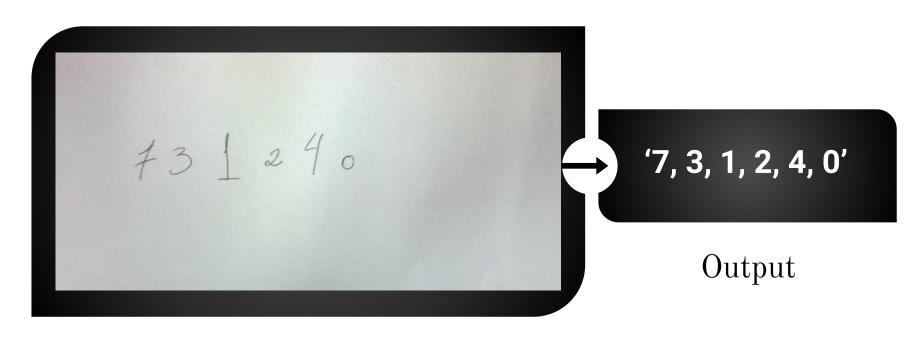
RECONHECIMENTO DE DÍGITOS

ALTAMIRO EGMARA JOĀO RENAN

OBJETIVO



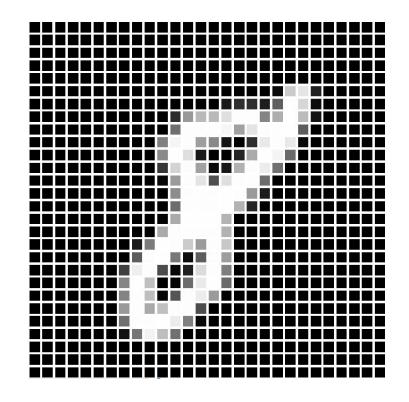
Input

Etapas



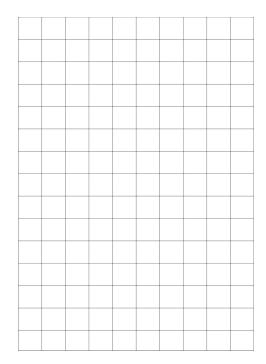
Construção do Banco de Dados

- MNIST: 70000 amostras
- 7000 de cada dígito
- Imagens 28x28



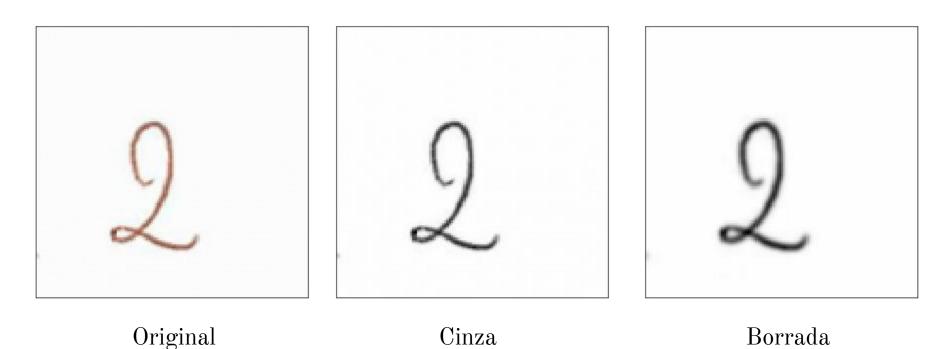
Construção do Banco de Dados

- 15 folhas
- 15 linhas por folha
- 225 amostras por dígito

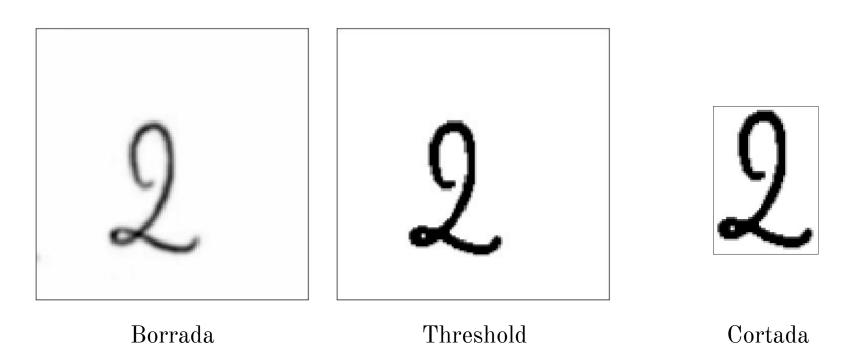


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Tratamento de Imagem

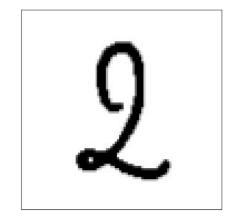


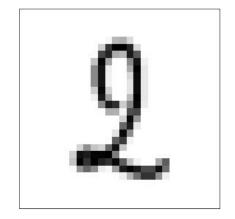
Tratamento de Imagem



Tratamento de Imagem







Cortada

Centralizada

28x28

Normalização da imagem

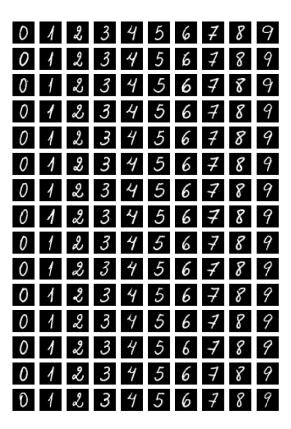
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Banco de dados

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	. 6	7	8	9
- 0	1	2	3	4	5	6	7	8	.9
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0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	-7	8	9
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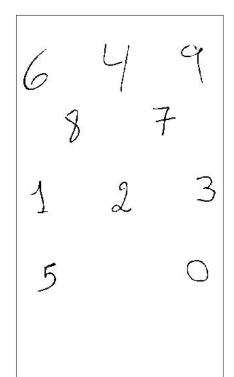
Banco de dados

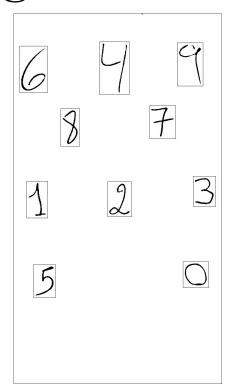


• MNIST 0 3 9 6 7 2 0 3 5 4

Tratamento de novas imagens







Treinamento dos Classificadores

Usando o Scikit-Learn

- Redes Neurais
- Árvores

