

# Categorization Challenge

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# AGENDA



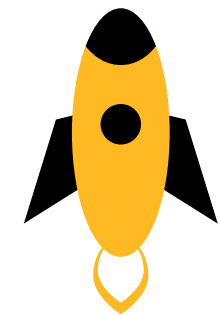
Challenge  
Description



Data  
processing.



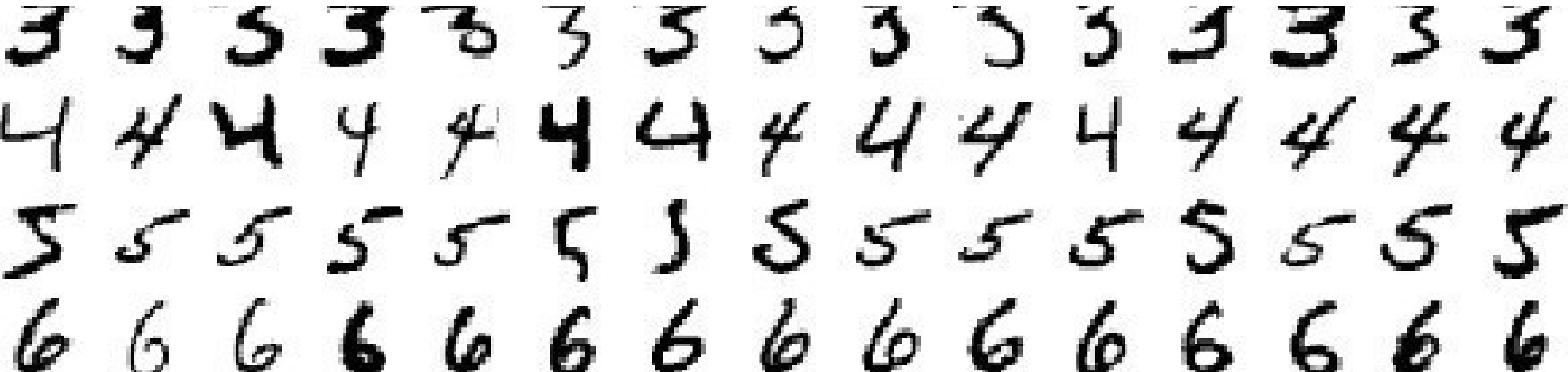
Feature  
selection.



Model selection.

## CHALLENGE DESCRIPTION

Build a classifier or categorization model for handwritten digits in the MNIST database.



# DATA PROCESSING

## We have ?

60,000 color images.  
10,000 Gray scale images.  
1 csv file with image labels.

## What we did ?

**Step 1:** Look for NAN values in the csv label file.

**step 2:** Normalize both sets of images in a single color scale.

**step 3:** vectorize the matrix to input the data in the model.

## *What we tried ?*

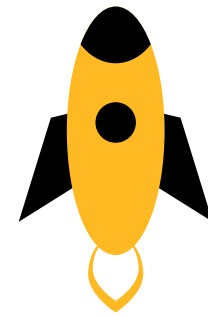
Work with binary pictures.

Reduce the number of pixels in a image.

Rotate a specific set of images to uniform the data.



Feature  
selection.



Model selection.