

# Digit Recognizer

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## **1. Business Objectives:**

to machine learning on "train.csv", then to recognize the hand-drawn digits in "test.csv".

## **2. Data Mining Goals:**

To achieve a categorization accuracy of 0.97

### 3. a Brief Analytic Plan:

1. To pre-study the local properties of hand-drawn digits in "train.csv", e.g. it's shape, darkness and trace width, then to display them in GUI; to do a statistics on how much the pixel-value(0-255) for a pixel should reach, and how continuously for a pixel and it's neighbor pixels, then will be recognized as a part of digit.
2. To pre-study the global properties of hand-drawn digits in "train.csv".
3. Finally, to use R or Python language to work out an algorithm on recognize the "test.csv".

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**The End**  
**Thank you!**