

# Project

## SVHN Digit Recognition

### Context

One of the most interesting tasks in deep learning is to recognize objects in natural scenes. The ability to process visual information using machine learning algorithms can be very useful as demonstrated in various applications.

The SVHN dataset contains over 600,000 labeled digits cropped from street-level photos. It is one of the most popular image recognition datasets. It has been used in neural networks created by Google to improve the map quality by automatically transcribing the address numbers from a patch of pixels. The transcribed number with a known street address helps pinpoint the location of the building it represents.

### Objective

The objective is to predict the number depicted inside the image by using Artificial or Fully Connected Feed Forward Neural Networks and Convolutional Neural Networks.

### Dataset

The dataset is present in .h5 format at this link ([SVHN\\_single\\_grey1.h5](#)). You should use a subset of the dataset to save computation time. The images are available in a single channel (grayscale) in 32 x 32 pixels.