

**Real time Digit Recognition using Web Camera**  
**CMPE – 258 Deep Learning**  
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**Read Me –**

1. Files –
  - a. web\_cam\_roi.py
  - b. model\_under\_test.h5
2. Requirements –
  - a. Web Camera
  - b. Python Version – 3.7.6
  - c. Numpy
  - d. OpenCv
  - e. Keras
  - f. Tesnsorflow
3. Steps to run digit recognition –
  - a. Download both the files into the same directory.
  - b. In the terminal type:
    - i. If having more than two python version installed in your system (**Mac Users**) – **python3 web\_cam\_roi.py**
    - ii. If having only python 3 installed - **python web\_cam\_roi.py**
  - c. Show any handwritten digits of any length for in the ROI (Green Colored region) for digit recognition.

**References –**

1. Loading trained model – [Harry Li OpenCv](#).
2. Creating Region of Interest on web camera display - [Creating a simple Region of Interest \(ROI\) inside a video streaming using OpenCV in Python](#).
3. Bounding Rectangle for Image Localization - [Digit Recognition using OpenCV, sklearn and Python](#).