Problem statement: It would be great if there is an application which recognizes tourist/travel places from an image. Just like google lens, the application should detect the place from the picture.

How is your solution valuable?: The solution helps to detect places and use in visual search engines, social media platforms, photo tagging etc.

Data source: The dataset is a Google-Landmarks, the largest worldwide dataset to date, to foster progress in this problem.

The dataset is divided into two sets of images, to evaluate two different computer vision tasks: recognition and retrieval. The data was originally described in and published as part of the <u>Google Landmark Recognition Challenge</u> and <u>Google Landmark Retrieval Challenge</u>.

Techniques used: Deep learning with Keras(Tensorflow backend) using Convolutional neural networks.

Challenges I anticipate: Accounting for, at what point is the convergence rate worth the trade-off of accuracy loss, deciding epochs needed, neural network size needed for better performance.

Areas of application:

- 1. Photo tagging on social networks
- 2. Visual search engine
- 3. Automatic image recognition mobile apps