Landmark Recognition

CPSC 663 Term Project

Abstract

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Contents

1 Introduction

1.1 Goal

The goal of this project is to build a deep learning model that tackles the challenge laid out in the "Google Landmark Recognition and Retrieval Challenge", which revolves around helping users remember their past trips by classifying/labeling different landmarks from around the world. After the recognition aspect, the second part (if there is time) would be to perform retrieval, i.e. given a query of a particular image, we would output images with the same landmark. These tasks involve designing, building, and training an image recognition model to effectively perform the recognition task required to a competitive degree.

1.2 Data Description

The data we are provided with is in the form of URLs, from which we can write a script to retrieve the actual images. While this project seems similar to ILSVRC in that we are also classifying images (recognition and retrieval), in this project, there are over 15,000 classes (as opposed to 1,000 in ILSVRC), and the number of training examples per class may not be very large. Nevertheless, the data comes from Google images, and the expanded data set contains over 1 million images. In the test data, each image can contain one landmark, no landmark or multiple landmarks.

2 Methodology

3 Results

4 Conclusion