Machine Learning 2 - Group 4
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Final Project Proposal

The main purpose of this project is to classify honey bee subspecies and hive health from variety of images.

The dataset we are using is Honey Bee Image Dataset. Here is the link from Kaggle: https://www.kaggle.com/jenny18/honey-bee-annotated-images/kernels.
There are 5173 images in the dataset, which includes 7 subspecies of bees. This dataset is large enough to recognize bee subspecies.

We will build a standard CNN model to do mini batch training; F-score and accuracy are our performance index. We decide to use Pytorch and Keras as our framework.

Reference Materials:
- ImageNet Classification with Deep Convolutional Neural Networks (http://papers.nips.cc/paper/4824-imagenet-classification-with-deep-convolutional-neural-networks.pdf)

Schedule:

Oct 22 - 28	Group proposal(Dataset, Network, Framework, Reference materials)
Oct 29 - Nov 4	Download images, rought analysis on dataset
Nov 4 - 11	Data Preprocessing
Nov 12 - 18	Training model, select the best transfer function
Nov 19 - 25	Testing model, finish coding. Visualize result.
Nov 26 - Dec 2	Write project report and prepare for presentation
Dec 3 - 4	Group Presentation