**Initial Setup:**

cd into the a directory

* git clone <https://github.com/DucLeTrong/food101-classification>
* cd food101-classification**/**
* wget <http://data.vision.ee.ethz.ch/cvl/food-101.tar.gz> #this gets the image database
* tar -xvf food-101.tar.gz #unpacks it
* python3 split\_train\_test\_folder.py
* keras download: https://drive.google.com/file/d/12y5-MscQeQbmVQOrjy5aobPHGjTpxJ\_v/view?usp=sharing

\*Note that all of the files, I’ve just thrown into the root folder. All of the folders within the root directory is either from cloning, or the commands make them itself. I didn’t edit anything inside the folders. The only files I manually edited are all in the main directory. (predict.py, train.py, utils.py, TrainInstructions.docx, my\_preds.txt, model.01-4.61.keras, foodphoto.jpg, class\_indices.jpg)

**Below is the training instructions:**

train.py is used to actually train the model

predict.py is used to predict the food from the image, and get an output (in terminal)

* predict uses the “model.01-4.61.keras”, and similar sounding file name (which is the model), which is outputted from the train,py when it finishes running, and is in the main directory
* syntax is:
* python predict.py \

--model model.01-4.61.keras \ #the model, might change

--train-dir food-101/train \ #the training set, don’t need to modify

--output-file my\_preds.txt \ #output text, don’t need to modify

foodphoto.jpg #the image to predict, can change

class\_indices.json holds the JSON of the food labels

my\_preds.txt is the output of predict.py

Now for train.py, you set up the whole directory once you’ve cloned it and cd inside, run in terminal:

* python3 -m venv food101-env
* source food101-env/bin/activate
* pip install tensorflow tensorflow\_datasets matplotlib pandas scipy
* python3 train.py