ReadMe: Vehicle Classification using GPS Data

Swadesh Vaibhav, Vipin Baswan

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1 Code Introduction

The code is divided into 4 sections:

1. **Mounting necessary files:** Run this- code to have the environment set up with all the necessary files.
2. **Importing necessary prerequisites:** Run this piece of code to import the necessary libraries and download the dependencies.
3. **Preprocessing:** Run this piece of code preprocess the data. Please refer to the code for block-by-block details. Also, please note that ceratin changes to the names of the files may be required as per the situation.
4. **Training:** Run this code for training the model on the preprocessed data. Again, please refer to the comments of the code for more details.s

2 Requirements

Before running the code, please install Anaconda. Open the code using Jupyter Notebook. Then follow the commands as written in the comments for each cell to execute the code cell-by-cell. The code has the following dependencies:

1. scikit-learn (*conda install -c anaconda scikit-learn*)
2. xgboost (*conda install -c conda-forge xgboost*)
3. matplotlib (*conda install -c conda-forge matplotlib*)
4. glob (*sudo pip install glob2*)
5. keras (*conda install -c anaconda scikit-learn*)
6. pyproj (*conda install -c conda-forge pyproj*)
7. pandas (*conda install -c anaconda pandas*)
8. numpy (*conda install -c anaconda numpy*)

3 Running the code

The code can be run by any of the two ways:

1. Using Jupyter Notebook: Press *Shift + Enter* to run the cell. Follow for each cell.
2. Using command line: Use *./src* command. The command will finish silently (No Prompts).

Note: We recommend to use method 1, since progress can be tracked as prompt messages are displayed by the code.