README for "Data driven approaches for passenger train delay estimation".

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Abstract

This document describes the implementation of regression models introduced in the article "Data driven approaches for passenger train delay estimation" by Wang and Work, submitted to the IEEE ITSC 2015. The source code is hosted at `https://github.com/Lab-Work/TrainDelayEstimation_IEEEITSC`.

1   License

2 Running the code

Go to fold PythonCode, the provided .py-files can be used to reproduce the results presented in the publication.

1. Download the 2011-2013 Amtrak data from the link provided in reference [2] in the article.

2. Unzip the folders and copy them into the fold: amtrakData

3. run unzip.py to unzip all the data from 2011 to 2013

4. run delay_extraction.py to compute the delay for all trains

5. run generate_training_data.py to generate training data

6. run main_hist_online_68 to generate all figures shown in the paper, the results can be found under the folder named results.

7. run main_online_interacting.py to see the results for the online regression interacting model (3) and its comparison with online regression model (7) presented in the paper.