UNIVERSITY of WISCONSIN
UWMILWAUKEE

Department of
Mathematical Sciences

Master's Thesis Defense

Mr. Frank Bitter

MS Graduate Student

Under the Supervision of Dr. Daniel Gervini

Wednesday, Apr. 22, 2020 at 2:00 pm
Online via Microsoft Team's

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A Statistical Model for the Prediction of the Taxi Trip Time in the City of Chicago

This thesis addresses the problem of prediction of taxi trip duration for any given day, time, pickup point and dropoff point. Data on taxi trips from the Chicago Data Portal is used. The main idea of the model is to cluster similar trips together and use the mean duration of all those clustered taxi trips to predict the duration of a new taxi trip in that cluster. Furthermore, for a possible additional reduction of prediction error, estimators from different days which are not significantly different from each other are pooled together. It is shown that this procedure improves prediction error.

Committee Members:

Profs. Daniel Gervini (Advisor); Peter Hinow & David Spade

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