MetroViz: Visual Analysis of Public Transportation Data

Fan Du ...

Fig. 1. In the Clouds: Vancouver from Cypress Mountain.

Abstract— Motivation
Problem statement
Approach
Results
Conclusions Public transportation is an important part our daily life. In the operation of public transportation, ridership and adherence data have been collected. With the growth of data scale, the department of transportation is in need of powerful visualization tools to explore the data, and gain insights. In this paper, we developed a visual tool to help explore the data, and gain insights. Our tool provides a map view and a route view to help people quickly locate stops and routes. A calendar view to provide a overview of adherence / ridership information for several years. A trip and a stop view to help people get details of trips and stops on specific days. Two CATT Lab researchers and twelve computer science PhD students took part in a study in which they used our tool to explore bus ridership and adherence data of Blacksburg City. THe participants were able to use our tool to locate stops and routes, and detect abnormal stops and routes, and find abnormal days.

Index Terms—Public transportation, visual analysis

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1 INTRODUCTION

TODO: Fan

2 RELATED WORKS

TODO: Fan

3 SYSTEM OVERVIEW

TODO: Peter

4 DATA PROCESSING

TODO: Yoav

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5 VISUAL DESIGN

5.0.1 Map View

TODO: Fan

5.0.2 Route View

TODO: Varun

5.0.3 Calender View

TODO: Peter

5.0.4 Trip View

TODO: Peter

5.0.5 Stop View

TODO: Josh

6 EVALUATION

6.0.6 Methodology

TODO: Varun

6.0.7 Results

TODO: Josh

7 DISCUSSION AND FUTURE WORK

TODO: Peter

8 CREDITS

Rejected Ejector Seat Reservation

REFERENCES