

Design and Implementation of A TTE System

Second Report

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Content

| | | |
|----------|---------------------------|----------|
| 1 | Preliminaries | 2 |
| 1.1 | Review | 2 |
| 1.1.1 | TTE | 2 |
| 1.1.2 | Goal | 2 |
| 1.2 | Introduction | 3 |
| 2 | TTE Web APP Design | 4 |
| 3 | Computing TTI | 5 |

1 Preliminaries

1.1 Review

1.1.1 TTE

Travel Time Estimation (TTE) is one of the most important researching topic in the traffic forecasting field. Estimating the travel time of any path in a city is of great importance to traffic monitoring, route planning, ridesharing, taxi dispatching, etc. On Sep. 2020, DeepMind published a blog named *Traffic prediction with advanced Graph Neural Networks*. This blog briefly described the whole industrial structure of estimated times of arrival (ETAs) techniques applied in Google Map but did not given any detailed implementation or any code. Our work is based on the model structure of TTE proposed in the blog.

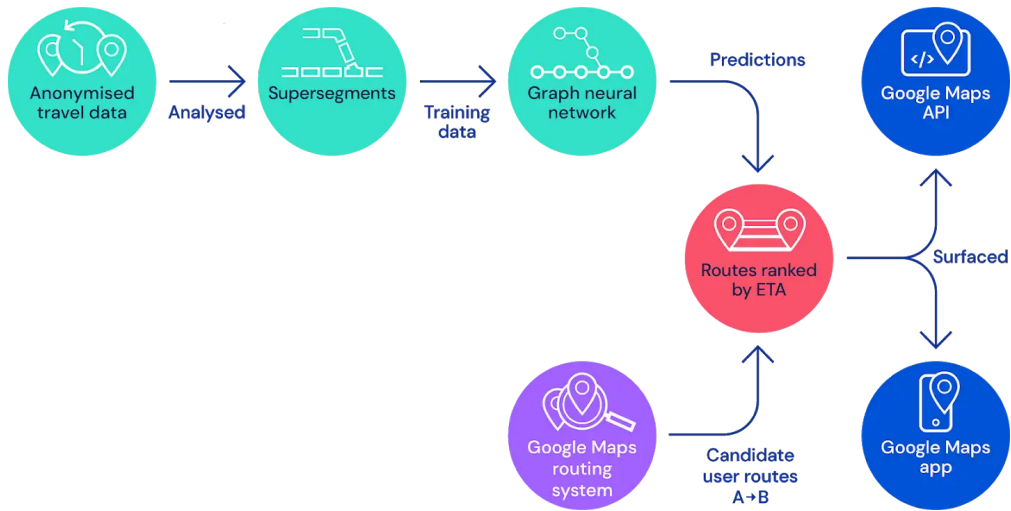


Figure 1: Architecture

1.1.2 Goal

Our ultimate goal (tentative) is to implement the industrial structure and apply it to the open source databases in China, then compare the performance with the state-of-the-art structures and find its application value. This semester, we will implement a TTE system base on the work we done in the last term, combining *Supersegment* and TTI. We will try to work out an interactive application with graphical user interface.

1.2 Introduction

In last stage, we finished the code of *Supersegment* and made a simple UI design of our application.

Breifly, we will state our work in this report as

- TTE Web APP Design by 董正 & 王宇辰
- Computing TTI by 崔俞崧

2 TTE Web APP Design

3 Computing TTI