TU XU

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CARRIER OBJECTIVE

I am interested in applying machine learning and deep learning skills to address real-world challenges especially in the area of smart city and autonomous vehicles.

EDUCATION

Georgia Institute of Technology   August 2016 - Expected August 2020
Ph.D. Candidate, Civil Engineering   GPA: 3.84/4.0
Advisor: Jorge. A. Laval

Fudan University   August 2012 - June 2016
Bachelor of Science, Physics.   GPA: 3.46/4.0

PUBLICATION AND PRESENTATION

Xu, T., & Laval, J. A. (2019). Analysis of a Two-Regime Stochastic Car-Following Model: Explaining Capacity Drop and Oscillation Instabilities. Transportation Research Record.

Xu, T., & Laval, J. A (2018). Parameter Estimation of a Stochastic Microscopic Car-Following Model. Presented at 97th Annual Meeting of the Transportation Research Board, Washington, D.C..

PROJECTS

Parameter Estimation of a Stochastic Car-Following Model (Thesis)
This project proposes a stochastic car-following model to explain traffic instabilities. Massive data were used to train this model. Data from Autonomous Vehicles (AV) were also analyzed to study the influence of AVs to traffic streams.

Online News Popularity Prediction
This project gives authors recommendations regarding how to capture readers' attention from data mining approaches. In this project, a data set with 40000 instances and 58 attributes is analyzed with data mining techniques including PCA and factorial analysis.

Implementing Intelligent Traffic Control on I-285
In this project, our team developed a traffic simulation application written in JAVA. Massive data were used to optimize parameters for the implementation of intelligent traffic control devices on I-285 in Atlanta. This project was sponsored by Georgia Department of Transportation.

WORK EXPERIENCE

Pond & Company   January 2018 - May 2018
Traffic intern

· Topics: Data analysis, traffic modeling and simulation

SKILLS

Programming Language	JAVA, Python, R, MATLAB, SAS, Mathematica, C
ML Framework	Pytorch