XINGMIN WANG

EDUCATION

University of Michigan, Ann Arbor *Aug. 2018 - present*
Graduate Student of Civil and Environmental Engineering since 2018 Fall Overall GPA: 4.0/4.0

Tsinghua University *Aug. 2014 - July 2018*
Bachelor's Degree of Engineering (Automotive Engineering) Overall GPA: 89.0/100, Rank: 5th/86

PUBLICATION

Xingmin Wang, Shengyin Shen, Debra Bezzina, James R. Sayer, Henry X. Liu, and Yiheng Feng. "Data Infrastructure for Connected Vehicle Applications." Transportation Research Record (2020).

Xingmin Wang, Jianfeng Zheng, Henry Liu, Weili Sun, "Estimating saturation flow for signalized intersection using trajectory data", poster in 98th Transportation Research Board Annual Meeting, 2019.

Yan Zhao, Jianfeng Zheng, Wai Wong, **Xingmin Wang**, Yuan Meng, Henry Liu, "Estimation of queue length, probe vehicle penentration rate, and traffic volume using probe vehicle trajectories", poster in 98th Transportation Research Board Annual Meeting, 2019.

Xingmin Wang, Fangfang Zheng, Jianfeng Zheng, Xiaobo Liu, Henry Liu, "An Operation Scheme for Dynamic Sharing of Exclusive Bus Lanes: Modeling and Evaluation", poster in 97th Transportation Research Board Annual Meeting, 2018. [Link]

Shuo Feng, **Xingmin Wang**, Haowei Sun, Yi Zhang, Li Li, "A Better Understanding of Long-Range Temporal Dependence of Traffic Flow Time Series", Physica A: Statistical Mechanics and its Applications, 2018. [Link]

Shuo Feng, Ruimin Ke, **Xingmin Wang**, Yi Zhang, Li Li, "Traffic Flow Data Compression Considering Burst Components", Journal of IET Intelligent Transport Systems, 2017. [Link]

EXPERIENCE

University of Michigan, Ann Arbor *Sept. 2018 - present*
Graduate student research assistant in Professor Henry Liu's group

- Current research directions: traffic signal control using trajectories, stochastic traffic model and traffic state prediction
- Established a visualization system for the real-time signal control system using trajectories

Didi Chuxing *Sept. 2017 - July 2018*
Algorithm intern in Smart Transportation Group

- Isolated traffic signal control using trajectory data
- Abnormal congestion detection and saturation flow rate estimation using trajectory data

University of Michigan, Ann Arbor *June 2017 - Sept. 2017*
Undergraduate research intern in UMTRI

- Proposed a dynamic bus lane sharing system aimed at fully utilizing the capacity of the exclusive bus lane by allowing certain number of non-bus vehicles enter the bus lane under certain circumstances
- Using cell transmission model to evaluate the proposed dynamic bus lane sharing system.

Tsinghua University, Department of Automation *Sept. 2016 - June 2017*
Undergraduate research program

- Traffic data compression and analysis by dividing the traffic flow series into trends, fluctuations and burst points
- Analyzed the long range dependence of traffic flow series using detrended fluctuation analysis

Tsinghua University, Department of Automotive Engineering *Jan. 2016*
Undergraduate research program

- Developed a 3-D display system composed of 5 LCDs and adjusted the images by tracking the location of the observer's eyes [Demo]
- Won the 1st prize in the Challenge Cup Technology Contest and excellent program in Undergraduate Research Program in Tsinghua University

HONORS AND AWARDS

1st Prize in 35th Challenge Cup Competition, Tsinghua University	*2017*
Infineon Technology Scholarship, Tsinghua University	*2017*
Excellent project in the Undergraduate Research Program of Tsinghua University	*2016*
1st Prize in Physics Competition for Undergraduate Students in China	*2015*
1st Prize in Theoretical Mechanics Competition, Tsinghua University	*2015*
China fastgear Scholarship, Tsinghua University	*2015*
Fellowship of Siyuan Programme, Tsinghua University	*2015-2018*

TECHNIQUES

Programming skills: Python,MATLAB,C/C++
Software: Latex/Lyx, AutoCAd, SolidWorks