

YAO TIAN

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EDUCATION

Zhejiang University

M.S. in Operations Research & Cybernetics

Research topic: pattern recognition & behavior prediction of urban vehicles

Research advisor: Dr. Shuping Chen

Overall GPA: 3.83/4

2017/9 - 2020/3 (expected)

Hangzhou, Zhejiang, China

Sichuan University

B.S. Mathematics & Applied Mathematics

Overall GPA: 3.52/4

2013/9 - 2017/6

Chengdu, Sichuan, China

RESEARCH EXPERIENCE

Unlicensed Taxis Detection Algorithm Based on Traffic Surveillance Data *2018/9 - Present*

- Proposing two novel features, “path irregularity” and “time irregularity”, for classifying vehicles.
- Proposing a trajectory segment algorithm which divides monitoring records of a vehicle into trips.
- Achieving better accuracy and using less execution time compared with previous work based on real-world data.

Efficient reconstruction algorithm for hyperspectral image

2019/3 - Present

- Using finite functionals to approximate functions (hyperspectrum) on a given function space.
- Finding a metric to measure difference between the raw function and the reconstructed function.

Traffic light scheduling using linear control theory

2017/9 - 2017/11

- Building a discrete feedback system which adjusts green time ratio dynamically to smooth the flow of automobiles through intersections.

WORK EXPERIENCE

Teaching assistant, Zhejiang University

2017/9 - 2019/2

- TA courses: Linear Algebra, Calculus, Probability and Statistics.

Home tutor

2014/3 - 2015/9

- Teaching high school students math.

PUBLICATIONS

Y. Tian, J. M. Yang and P. K. Lu. Unlicensed Taxis Detection Algorithm Based on Traffic Surveillance Data. 27th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems Workshops (5th EM-GIS), 2019.

J. H. Tian, H. B. Zhang, L. Ma, H. Y. Liu, Y. Tian et al. A Method of Siting Wireless Communication Cetwork Base Stations. Chinese Patent, 2019.

AWARDS AND ACHIEVEMENTS

Competitions

2016/11 The First Prize in 8th National College Students Mathematical Competition
(Professional Group)

Scholarships

2019/10 National Scholarship, Zhejiang University
2018/12 The Guo Zhurui Scholarship, Zhejiang University
2016/12 National Encouragement Scholarship, Sichuan University
2015/11 The Second Prize Scholarship, Sichuan University
2014/11 The First-class Individual Scholarship, Sichuan University

Honours

2018/12 Merit Student, Zhejiang University
2018/12 Outstanding Graduate Leader, Zhejiang University
2016/10 Outstanding Graduates, Sichuan University
2015/11 Outstanding Student, Sichuan University
2014/11 Outstanding Student Leader, Sichuan University

Others

2018/12 Gold Medalist in Table Tennis Women's Doubles Competition, Zhejiang University
2018/12 Gold Medalist in Table Tennis Teams Competition, Zhejiang University
2018/11 Successfully Complete 2018 Hangzhou Marathon (Full)
2017/4 Successfully Complete 2017 Hengdian Marathon (Half)
2015/7 Excellent Volunteer, China Guanghua Foundation

COMPUTER SKILLS

Good at Python, Matlab, SQL and Latex.