YAO TIAN

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EDUCATION

Zhejiang University *2017/9 - 2020/3 (expected)*
M.S. in Operations Research & Cybernetics *Hangzhou, Zhejiang, China*
Research topic: pattern recognition & behavior prediction of urban vehicles
Research advisor: Dr. Shuping Chen
Overall GPA: 3.83/4

Sichuan University *2013/9 - 2017/6*
B.S. Mathematics & Applied Mathematics *Chengdu, Sichuan, China*
Overall GPA: 3.52/4

RESEARCH EXPERIENCE

Unlicensed taxis detection algorithm based on road monitoring 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 and J. M. Yang, "Vehicle Classification Algorithm : Commercial and Non-commercial Vehicles". (Under review)

AWARDS AND ACHIEVEMENTS

Competitions

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

Scholarships

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.