

YINSONG WANG

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Department of Mechanical and Industrial Engineering, Northeastern University

EDUCATION

- Northeastern University, United States** *Jul 2021 - Present*
Ph.D. in Industrial Engineering transferred from Texas A&M University
Department of Mechanical and Industrial Engineering
Advisor: Shahin Shahrapour
- Texas A&M University, United States** *Sep 2018 - Jun 2021*
Ph.D. in Industrial and Systems Engineering
Department of Industrial and System Engineering
Advisor: Shahin Shahrapour
- The Hong Kong Polytechnic University, Hong Kong** *Aug 2017 - Jan 2019*
M.S. in Manufacturing System Engineering and Management
Department of Industrial and Systems Engineering
- Shandong University, China** *Sep 2013 - Jun 2017*
B.E. in Mechanical Engineering
Department of Mechanical Engineering.

RESEARCH INTEREST

Machine Learning, Meta Learning, Kernel Methods, Real-time Density Estimation, Distributed Learning

PUBLICATIONS

Journal Papers

- *TAKDE: Temporal Adaptive Kernel Density Estimator for Real-Time Dynamic Density Estimation*
Yinsong Wang, Yu Ding, Shahin Shahrapour
IEEE Transactions on Pattern Analysis and Machine Intelligence (IF: 24.31) *2023*
- *Learning from Non-IID Data in Hilbert Spaces: An Optimal Recovery Perspective*
Simon Foucart, Chunyang Liao, Shahin Shahrapour, **Yinsong Wang** (alphabetical order)
Sampling Theory, Signal Processing, and Data Analysis *2022*
- *ORCCA: Optimal Randomized Canonical Correlation Analysis*
Yinsong Wang, Shahin Shahrapour
IEEE Transactions on Neural Networks and Learning Systems (IF: 14.26) *2021*
- *Classification of Officers Driving Situations Based on Eye-Tracking and Driver Performance Measures*
Maryam Zahabi, **Yinsong Wang**, Shahin Shahrapour
IEEE Transactions on Human-Machine Systems (IF:4.142) *2021*

Peer-Reviewed Conference Papers

- *Estimating Traffic Density using Transformer Decoders*
Yinsong Wang, Jing Zhang, Daniel Nikovski, Takaya Yamamoto
The 4th International Workshop on Statistical Methods and Artificial Intelligence (IWSMAI) *2023*

- *Tracking Dynamic Gaussian Density with a Theoretically Optimal Sliding Window Approach*
Yinsong Wang, Yu Ding, Shahin Shahrampour
InfoSymbiotics/Dynamic Data Driven Applications Systems (DDDAS) 2022
- *Cell Association via Boundary Detection: A Scalable Approach Based on Data-Driven Random Features*
Yinsong Wang, Hessam MahdaviFar, Kamran Entesari, Shahin Shahrampour
54th Asilomar Conference on Signals, Systems, and Computers 2020
- *Distributed Parameter Estimation in Randomized One-hidden-layer Neural Networks*
Yinsong Wang, Shahin Shahrampour
American Control Conference (ACC) 2020

HONORS & AWARDS

- **John and Katharine Cipolla Ph.D. Merit Award** *Dec 2022*
Northeastern University
- **Student Travel Awards** *Jul 2020*
2020 American Control Conference (ACC)
- **Best Poster Awards** *Nov 2019*
Texas A&M University ISEN Department Poster Session
- **Bronze Medal** *Sep 2016*
The 2nd Internet Plus Innovation and Entrepreneurship Competition of Shandong Province
- **First Prize** *Aug 2016*
International Contest of innovation (iCAN), Shandong Division
- **Bronze Medal** *Jun 2016*
Shandong Haier College Students Entrepreneurship Competition
- **Golden Award** *Apr 2016*
College Student Entrepreneurship Competition of Shandong University
- **Second Prize** *Nov 2015*
The 1st Shandong “Fengqi Teahouse” Cup IT & Innovation Competition
- **Third Prize** *Jun 2014*
Shandong University Energy Conservation and Emission Reduction Competition

TEACHING EXPERIENCE

Graduate Teaching Assistant at Texas A&M University *Sep 2018 - Jun 2021*
Courses:

- ISEN 613 (Graduate): Engineering Data Analysis
- ISEN 625 (Graduate): Simulation Methods and Applications
- ISEN 355 (Undergraduate): System Simulation

INDUSTRY EXPERIENCE

Research Intern at Mitsubishi Electric Research Labs (MERL) *May 2023 - Aug 2023*
Hosts: Arvind Raghunathan, Daniel Nikovski, Jing Zhang

Research Intern at Mitsubishi Electric Research Labs (MERL) *Jan 2022 - Apr 2022*
Hosts: Daniel Nikovski, Jing Zhang

Assistant Engineer at Shandong Hein Saw Co., Ltd. *Feb 2017 - Mar 2017*

Assistant Engineer at Shandong Lingong Construction Machinery Co., Ltd.

Jul 2016 - Aug 2016

Management Intern at Kailuan (Group) Co., Ltd (Fortune 500)

Jul 2015 - Aug 2015

SERVICE

Reviewer

- IEEE American Control Conference (ACC)
- Learning for Dynamics and Control Conference (L4DC)
- Artificial Intelligence Review

MAIN CODING LANGUAGE

Python (PyTorch, TensorFlow, Jax), R, Matlab