

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 Shahrampour

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 Shahrampour

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

- *Learning from Non-IID Data in Hilbert Spaces: An Optimal Recovery Perspective*
Simon Foucart, Chunyang Liao, Shahin Shahrampour, **Yinsong Wang** (alphabetical order)
Sampling Theory, Signal Processing, and Data Analysis 2022
- *ORCCA: Optimal Randomized Canonical Correlation Analysis*
Yinsong Wang, Shahin Shahrampour
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 Shahrampour
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

Submitted Journals

- *TAKDE: Temporal Adaptive Kernel Density Estimator for Real-Time Dynamic Density Estimation*
Yinsong Wang, Yu Ding, Shahin Shahrampour
IEEE Transactions on Pattern Analysis and Machine Intelligence (IF: 24.31), minor revision

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) Hosts: Arvind Raghunathan, Daniel Nikovski, Jing Zhang	<i>May 2023 - Aug 2023</i>
Research Intern at Mitsubishi Electric Research Labs (MERL) Hosts: Daniel Nikovski, Jing Zhang	<i>Jan 2022 - Apr 2022</i>
Assistant Engineer at Shandong Hein Saw Co., Ltd.	<i>Feb 2017 - Mar 2017</i>
Assistant Engineer at Shandong Lingong Construction Machinery Co., Ltd.	<i>Jul 2016 - Aug 2016</i>
Management Intern at Kailuan (Group) Co., Ltd (Fortune 500)	<i>Jul 2015 - Aug 2015</i>

SERVICE

Reviewer

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

MAIN CODING LANGUAGE

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