YIKUN BAI

CONTACT INFORMATION

Evans Hall
University of Delaware
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EDUCATION

University of Delaware 2019 - 2022
Ph.D. candidate Electrical and Computer Engineering GPA: 4.0/4.0
Thesis: Optimal transport meets information theory: from measure concentration, to information theory, to machine learning

University of Delaware 2016 - 2018
M.S. Applied Mathematics (Ph.D. Transferred) GPA: 4.0/4.0
Qualifying exams passed:
- Functional analysis, Stochastic process, Hypothesis test

Marshall University 2014 - 2016
M.A. Mathematics GPA: 4.0/4.0

Mudanjiang Medical University (China) 2007 - 2012
B.S. Medical Imaging Grade: 83/100

SKILLS

Programming Language: Python, Matlab, Mathematics, MySQL.
Machine learning: Experience of DNN, GAN. Projecive expercience with Pytorch.
Other software: Latex, Microsoft office (Excel, Powerpoint, etc).

PUBLICATIONS

Conference

- Daria Reshetova, Yikun Bai, Xiugang Wu, and Ayfer Özgür. Understanding entropic regularization in gans. In *2021 IEEE International Symposium on Information Theory (ISIT)*. IEEE, 2021
- Yikun Bai, Xiugang Wu, and Ayfer Özgür. Information constrained optimal transport: From talagrand, to marton, to cover. In *2020 IEEE International Symposium on Information Theory (ISIT)*, pages 2210–2215. IEEE, 2020

Journal

- Daria Reshetova, Yikun Bai, Xiugang Wu, and Ayfer Özgür. Understanding entropic regularization in gans. In *Journal of Machine Learning Research*, 2021 (pre-print)
- Yikun Bai, Xiugang Wu, and Ayfer Özgür. Information constrained optimal transport: From talagrand, to marton, to cover. In *IEEE Transactions on Information Theory*, pages 2210–2215. IEEE, 2021 (pre-print)
- Scott A Sarra and Yikun Bai. A rational radial basis function method for accurately resolving discontinuities and steep gradients. *Applied Numerical Mathematics*, 130:131–142, 2018

TEACHING EXPERIENCE

Teaching Assistant — **University of Delaware**

Advanced Machine Learning (ELEG 867, ELEG 602)	Spring 2019, Fall 2020
Convex Optimization (ELEG 667)	Fall 2019
Random Signals and Probability (ELEG 310)	Spring 2020, Spring 2021
Statistics (MATH 210)	Spring 2018, Fall 2018
Calculus and Analytic Geometry (MATH 241, MATH 221)	Fall 2016, Spring 2017

PROFESSIONAL ACTIVITIES

Paper Reviewer

- IEEE transaction on information science

AWARDS AND HONORS

- Winner of ECE Research Day 2021 poster sessions 2021
- GEMS project fund at the University of Delaware 2017