BOTAO HAO

Mobile: 765-838-9444
Email: haobotao000@gmail.com
Website: https://haobotao000.github.io/

RESEARCH INTERESTS

Reinforcement Learning, Online Learning & Multi-Armed Bandits, Statistical Machine Learning, Tensor Learning, Recommender Systems & Online Advertising

EDUCATIONS

Ph.D. in Statistics   Sep. 2014 - Dec. 2019
Department of Statistics, Purdue University
Thesis Advisor: Dr. Guang Cheng

B.S. in Statistics   Sep. 2010 - Aug. 2014
School of Mathematics, Nankai University
Thesis Advisor: Dr. Changliang Zou

EXPERIENCES

▲ **Department of Electrical Engineering, Princeton University, NJ**   Dec. 2019 - Present
Postdoctoral Researcher
Mentor(s): Dr. Mengdi Wang

▲ **School of Mathematics, Institute for Advanced Study, NJ**   Jan. 2020 - Apr. 2020
Visiting Researcher

▲ **Deepmind, London, UK**   May 2019 - Sep. 2019
Research Intern
Mentor(s): Dr. Tor Lattimore, Dr. Csaba Szepesvári

▲ **Adobe Research, San Jose, CA**   May 2018 - Aug. 2018
Research Intern
Mentor(s): Dr. Zheng Wen

JOURNAL PUBLICATIONS

▲ **Nonparametric Bayesian Aggregation for Massive Data**
  Zuofeng Shang, **Botao Hao**, and Guang Cheng
  Journal of Machine Learning Research, 20(140):1-81. [ArXiv]

▲ **Simultaneous Clustering and Estimation of Heterogeneous Graphical Models**
  Botao Hao, Will Wei Sun, Yufeng Liu, and Guang Cheng
  Journal of Machine Learning Research, 18(217):1-58. [ArXiv]

CONFERENCE PUBLICATIONS

▲ **Bootstrapped Upper Confidence Bound**
  Botao Hao, Yasin Abbasi-Yadkori, Zheng Wen, and Guang Cheng
  Neural Information Processing Systems (NeurIPS), 2019. [ArXiv]

▲ **Adaptive Exploration in Linear Contextual Bandit**
  Botao Hao, Tor Lattimore, and Csaba Szepesvári
  International Conference on Artificial Intelligence and Statistics (AISTATS), 2020. [ArXiv]

PREPRINTS

▲ **Sparse and Low-rank Tensor Estimation via Cubic Sketchings**
  Botao Hao, Anru Zhang, and Guang Cheng

Under Revision. Accepted in part to AISTATS 2020. [ArXiv]

▲ **Sparse Tensor Additive Regression**
Botao Hao, Boxiang Wang, Pengyuan Wang, Emma Jingfei Zhang, Jian Yang and Will Wei Sun
Submitted. [ArXiv]

▲ **Provably Efficient Adaptive Approximate Policy Iteration**
Botao Hao, Nevena Lazic, Yasin Abbasi-Yadkori, Pooria Joulani and Csaba Szepesvári
Submitted. [ArXiv]

▲ **Residual Bootstrap Exploration for Bandit Algorithms**
Chi-Hua Wang*, Yang Yu*, **Botao Hao**, Guang Cheng
Submitted. [ArXiv]

HONORS AND AWARDS

▲ Bilsland Dissertation Fellowship   *2019-2020*
Nominated and selected by members of the graduate faculty to support outstanding Ph.D. candidates in the final year of doctoral degree completion across the whole university.
▲ NeurIPS 2019 Travel Award

INVITED TALKS

▲ Deepmind for Google, Mountain View, CA   *Jan. 2020*
▲ Institute of Statistics, Nankai University, Tianjin   *Dec. 2018*
▲ International Conference on Data Science, Shanghai,   *Dec. 2017*
▲ The 25th ICSA Applied Statistics Symposium, Chicago,   *Jun. 2017*
▲ Conference on Statistical Learning and Data Science, Chapel Hill, NC,   *Jun. 2016*

TEACHING EXPERIENCES

▲ Lab Instructor, STAT 301: Elementary Statistical Methods, Spring 2015, Summer 2015, Fall 2015
▲ Lab Instructor, STAT 113: Statistics and Society, Summer 2017
▲ Grader, STAT 519: Introduction to Probability Theory, Fall 2014, Spring 2015, Fall 2016, Fall 2017
▲ Grader, STAT 516: Basic Probability and Applications, Fall 2015

SERVICES

▲ Co-chair of Ubicomp 2019 Workshop on Continual and Multimodal Learning for Internet of Things, London, UK.
▲ Reviewers for Journals: Journal of the American Statistical Association, Journal of Machine Learning Research, Journal of Multivariate Analysis, Computational Statistics and Data Analysis, The IEEE Control Systems Letters, Statistica Sinica, Biostatistics
▲ Reviewers for Conferences: NeurIPS 2019, AISTAT 2020, UAI 2020