

## 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 - Present

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

**▲ 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, To appear.* [[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 32 (NeurIPS), 2019.* [[ArXiv](#)]

## PREPRINTS

**▲ Sparse and Low-rank Tensor Estimation via Cubic Sketchings**

**Botao Hao**, Anru Zhang, and Guang Cheng

*Submitted.* [[ArXiv](#)]

**▲ Sparse Tensor Additive Regression**

**Botao Hao**, Boxiang Wang, Pengyuan Wang, Emma Jingfei Zhang, Jian Yang and Will Wei Sun

*Submitted.* [[ArXiv](#)]

**▲ Adaptive Exploration in Linear Contextual Bandit**

**Botao Hao**, Tor Lattimore, and Csaba Szepesvári

*Preprint.*

## HONORS AND AWARDS

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- ▲ 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.*

## INVITED TALKS

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- ▲ 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

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- ▲ 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

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- ▲ Co-chair of Ubicomp 2019 Workshop on [Continual and Multimodal Learning for Internet of Things](#), London, UK.  
▲ Reviewers for Journals: Journal of Machine Learning Research, Journal of Multivariate Analysis, Computational Statistics and Data Analysis, The IEEE Control Systems Letters, Statistica Sinica  
▲ Reviewers for Conferences: NeurIPS 2019, AISTAT 2020