# XIAOQIAN (DANA) YANG

Postdoctoral Associate, The Fuqua School of Business, Duke University (203)479-0096 Supervisor: Prof. Jiaming Xu xiaoqian.yang@duke.edu

#### **EDUCATION**

Yale University 2014 - 2019

Ph.D. in Statistics & Data Science

Advisors: Prof. David Pollard, Prof. Yihong Wu, Prof. John Lafferty

Research interests: Bayesian analysis, privacy, fairness in machine learning, random graphs, non-convex optimization, nonparametric estimation

Thesis: "A few topics in statistics"

Yale University 2013-2014

M.A. in Statistics

Tsinghua University 2009-2013

B.S. in Mathematics

University of Washington Spring 2012

Exchange student in Mathematics & Statistics

## PUBLICATIONS AND PREPRINTS

- 1. Jian Ding, Yihong Wu, Jiaming Xu and Dana Yang, "Consistent recovery threshold of hidden nearest neighbor graphs", arXiv preprint arXiv:1911.08004, 2019.
- 2. Dana Yang, "Posterior asymptotic normality for an individual coordinate in high-dimensional linear regression", *Electronic Journal of Statistics*, 13(2), pages 3082-3094, 2019.
- 3. Jiaming Xu and Dana Yang, "Optimal query complexity for private sequential learning", arXiv preprint arXiv:1909.09836, 2019.
- 4. Pierre C. Bellec and Dana Yang, "The cost-free nature of optimally tuning Tikhonov regularizers and other ordered smoothers", arXiv preprint arXiv: 1905.12517, 2019.
- 5. Jason M. Klusowski, Dana Yang and W.D. Brinda, "Estimating the coefficients of a mixture of two linear regressions by expectation maximization", *IEEE Transactions on Information Theory*, 65(6), pages 3515-3524, 2019.
- 6. W.D. Brinda, Jason M. Klusowski and Dana Yang, "Hölder's identity", *Statistics & Probability Letters*, Volume 148, Pages 150-154, 2019.
- 7. David Pollard and Dana Yang, "Rapid mixing of a Markov chain for the exponentially weighted aggregation estimator", arXiv preprint arXiv: 1909.11773, 2019.
- 8. John Lafferty and Dana Yang, "Fair quantile regression", arXiv preprint arXiv: 1907.08646, 2019.
- 9. Victor-Emmanuel Brunel, Jason M. Klusowski and Dana Yang, "Estimation of convex supports from noisy measurements", under revision for Bernoulli, 2018.
- 10. Kun Tian, Xiaoqian Yang, Qin Kong, Changchuan Yin, Rong L. He and Stephen S-T Yau, "Two dimensional Yau-Hausdorff distance with applications on comparison of DNA and protein sequences", *PloS one*, 10(9), 2015.

11. Sören R. Künzel, David Pollard and Dana Yang, "Remarks on Kneip's linear smoothers", arXiv preprint arXiv: 1405.1744, 2014.

#### AWARDS AND HONORS

### Francis J. Anscombe Award for Academic Excellence

Department of Statistics and Data Science, Yale University

May 2019

#### RESEARCH EXPERIENCE

Postdoctoral Associate at The Fuqua School of Business, Duke University Aug 2019 - present

Supervisor: Prof. Jiaming Xu, Assistant Professor at the Fuqua School of Business, Duke University

Research Assistant at Emonet Lab, Yale University

Mar 2016 - Mar 2017

Supervisor: Prof. Thierry Emonet, Associate Professor of Molecular, Cellular & Developmental Biology and Physics, Yale University

Project: Detection of behavioral patterns of Escherichia coli (E. coli) bacteria.

#### TEACHING EXPERIENCE

Primary Instructor: responsible for designing and teaching a 25-lecture course.

- S&DS S107: Introduction to Statistics, Yale University, Summer 2017.

Teaching Fellow: responsible for holding recitations/office hours, grading, and occasionally giving lectures.

- S&DS 625: Statistical Case Studies, Yale University, Fall 2016.
- S&DS 610: Statistical Inference, Yale University, Fall 2016.
- S&DS 551: Stochastic Processes, Yale University, Spring 2016.
- S&DS 600: Advanced Probability, Yale University, Spring 2016.
- S&DS 538: Probability and Statistics, Yale University, Fall 2015.
- S&DS 661: Data Analysis, Yale University, Fall 2015.
- S&DS 600: Advanced Probability, Yale University, Spring 2015.
- S&DS 610: Statistical Inference, Yale University, Fall 2014.
- S&DS 103: Introduction to Statistics: Social Sciences, Yale University, Fall 2013.

## TALKS AND PRESENTATIONS

Probability Seminar Series, Department of Mathematics, Duke University Oct 2019

Decision Science Seminar Series, The Fuqua School of Business, Duke UniversityMar 2019

Statistics + Machine Learning Reading Group, Yale University
Nov 2018

SMIL@Y Research and Reading Meeting, Yale University Feb 2018, Sep 2018

Joint Statistical Meetings Aug 2016

Yale Probability Network Group Apr 2014, Apr 2015

#### PROGRAMMING SKILLS

- · Top 3000 competitors, Google Code Jam, 2015.
- · Second prize in the National Computing Olympiad, China, 2009.

# **SERVICE**

# Yale S&DS Data Clinic

2016-2019

Consultant: weekly meetings mostly with Yale researchers; in charge of computational interactions.

# Yale S&DS M.A. admissions committee

2015-2019

Reviewer: one of four committee members handling over 300 applications each year and making admission recommendations.

## Yale YHack competition

2018

Judge: reviewing around 50 submitted computational projects.

# Yale S&DS Graduate Student Seminar Series

2018

Organizer: scheduling talks and leading discussions.

# Occasional reviewer for Bernoulli

2015, 2019