

Duzhe Wang

CONTACT INFORMATION	Google 200 Bay View Drive Moffett Field, CA 94043	<i>Phone:</i> (352) 281-9796 <i>E-mail:</i> duzhe.stat@gmail.com <i>Homepage:</i> https://duzhewang.github.io/
RESEARCH INTERESTS	Causal inference, statistical machine learning, data science in technology, healthcare, and finance industries	
EMPLOYMENT	Google Display Ads, Google Data Scientist, Feb. 2023 - Present <ul style="list-style-type: none">Working on Google Display Ads optimization	Mountain View, CA
	Data Science, Scipher Medicine Senior Data Scientist, September 2022 - Feb. 2023 <ul style="list-style-type: none">Led data ingestion pipeline for clinical studies and clinical utility evidence generation for precision medicine diagnostic tests in autoimmune diseases	Waltham, MA
	The Statistics, Data, and Analytics Division, Eli Lilly and Company Research Scientist, Jan. 2021 - Aug. 2022 <ul style="list-style-type: none">Led post-regulatory evidence generation in medical affairs, market access, and real-world studies for Lilly rheumatology and diabetes portfolio	Indianapolis, IN
	Advanced Analytics and Data Sciences, Eli Lilly and Company Research Intern in Machine Learning, May 2019-Aug. 2019 <ul style="list-style-type: none">Developed boosting algorithms for individualized treatment recommendation	Indianapolis, IN
EDUCATION	University of Wisconsin-Madison Ph.D. in Statistics, December 2020 Minor in Computer Science (machine learning track) <ul style="list-style-type: none">Dissertation: “Efficient statistical learning of complex data”Advisor: Po-Ling Loh	Madison, WI
	University of Florida M.S. in Mathematics, May 2015 <ul style="list-style-type: none">Cumulative GPA: 4.0/4.0	Gainesville, FL
	Jilin University B.S. in Mathematics, June 2013 <ul style="list-style-type: none">Major GPA: 91/100, overall rank: 2/100	Changchun, China

HONORS AND
AWARDS

Lilly Innovator Awards, 2021 & 2022
Lilly USA Showcase Awards, 2022
JSM Virtual Travel Award, ASA Wisconsin Chapter, 2020
Student Paper Award, ASA Statistical Learning and Data Science Section, 2020
Student Paper Award, ASA Biopharmaceutical Section, 2020
Graduate Scholarship, UW-Madison, 2015 - 2020
Graduate Scholarship, UF, 2013 - 2015
Outstanding Graduate Award, UF, 2014 & 2015
Outstanding Undergraduate Student Award, Jilin University, 2013
Ping An Scholarship, Ping An Insurance of China, 2012
Outstanding Undergraduate Researcher Award, Jilin University, 2012
First Prize in Mathematical Contest in Modeling, Jilin University, 2011
Undergraduate Scholarship, Jilin University, 2009 - 2013

PUBLICATIONS

Fautrel, B., Wu, J., **Wang, D.**, Haladyj, E., van de Laar, Mart A. F. J., and Takeuchi, T. Relative Impact of Pain and Disease Activity on Improvements in Fatigue: Results From 2 Baricitinib Phase 3 Clinical Trials. *JCR: Journal of Clinical Rheumatology: December 7, 2022*

Wang, D. and Loh, P. 2020. Robust estimation in high-dimensional sparse heteroscedastic linear models. *Submitted.*

Wang, D. and Loh, P. 2020. Adaptive estimation and statistical inference for high-dimensional graph-based linear models. *Submitted.*

Wang, D., Fu, H., and Loh, P. 2020. Boosting algorithms for estimating optimal individualized treatment rules. *Submitted.*

CONFERENCE
ABSTRACTS

Wang, D., Malik, R., Yu, M., Kan, H., Bunck, M., Stefanski, A., Luis-Emilio Garcia-Perez, and Hankosky, E. Tirzepatide vs. Semaglutide 2.4 mg for Overweight and Obesity: An Indirect Treatment Comparison. *2022 Obesity Week, the Obesity Society*

Wang, D. Robust estimation in high-dimensional sparse heteroscedastic linear models. *2022 Joint Statistical Meetings*

Lipkovich, I., Kadziola, Z., **Wang, D.**, and Faries, D. Evaluation of different analytic strategies for estimating optimal treatment regimens for time-to-event outcomes in observational data. *2022 ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop*

Lipkovich, I., Kadziola, Z., **Wang, D.**, and Faries, D. Evaluation of machine learning approaches for estimating individualized treatment regimens for time-to-event outcomes in observational studies. *2022 WNAR/IMS/JR Annual Meeting*

Pope, J., Wu, J., **Wang, D.**, Ji, J., Griffing, K., and Strand V. An independent treatment effect of baricitinib in reducing fatigue after adjusting for clinical disease activity: Results from the RA-BEACON Phase 3 trial. *2022 CRA & AHPA Annual Scientific Meeting*

Sholter, D., Wu, J., **Wang, D.**, Quebe, A., Griffing, K., and Bykerk V. Rapid Clinical Response in Patients with Moderately to Severely Active Rheumatoid Arthritis Treated with Baricitinib. *2022 CRA & AHPA Annual Scientific Meeting*

Sebba, A., **Wang, D.**, Jia, B., Troutt, J., Birt, J., Quebe, A., and Taylor, P. Pain in Patients with Rheumatoid Arthritis Who Did or Did Not Achieve Treatment Response Based on Improvement in Swollen Joints with Baricitinib Clinical Trials. *Arthritis Rheumatol.* 2021; 73 (suppl 10).

PRESENTATIONS

Robust estimation in high-dimensional sparse heteroscedastic linear models. JSM, 2022.

Precision medicine from a statistical point of view: Boosting algorithms for estimating optimal individualized treatment rules. Invited talk at Scipher Medicine, 2022.

Boosting algorithms for estimating optimal individualized treatment rules. JSM Virtual Conference, 2020.

Boosting algorithms for estimating optimal individualized treatment rules. Invited talk at Eli Lilly and Company, 2020.

Boosting algorithms for estimating optimal individualized treatment rules. Invited talk at Boehringer Ingelheim, 2020.

Boosting algorithms for individualized treatment recommendation. ENAR Spring Meeting, 2020.

Estimating graph-based regression coefficients in high-dimensional linear models. Midwest Machine Learning Symposium, 2018.

TEACHING EXPERIENCE

Instructor

Department of Statistics, UW-Madison & Department of Mathematics, UF

Taught large undergraduate classes (around 140 students per semester), coordinated with other instructors, supervised a group of teaching assistants, constructed the course website, and developed the teaching material

- STAT324: Introductory Applied Statistics for Engineers Fall 2019 & Spring 2019
- STAT371: Introductory Applied Statistics for Life Sciences Spring 2018 & Fall 2017
- MGF1107: Math for LS Majors Summer 2015
- MAC2311: Calculus I Summer 2014

Teaching assistant

Department of Statistics, UW-Madison & Department of Mathematics, UF

Led discussions (around 3 sessions per semester), wrote weekly quizzes, administered online homework, graded all assessments, and interacted individually with students during office hours. Ranked top percent in TA evaluation

- STAT641: Statistical Methods for Clinical Trials Spring 2017
- STAT311: Mathematical Statistics Spring 2017
- STAT324: Introductory Applied Statistics for Engineers Fall 2016 & 2015
- STAT371: Introductory Applied Statistics for Life Sciences Summer 2016 & Spring 2020
- STAT327: R programming Spring 2016
- STAT479: Statistical Machine Learning Spring 2016
- MAC2311: Calculus I Spring 2015, Fall 2014 & Spring 2014
- MAC1147: Precalculus Fall 2013

PROFESSIONAL SERVICE AND LEADERSHIP

2022 JSM session chair, “Causal Inference for Dynamic Treatment and Mediation”

Reviewer, Annals of the Institute of Statistical Mathematics

Reviewer, Journal of Machine Learning Research (JMLR)
Reviewer, Journal of the Royal Statistical Society: Series B
Reviewer, Statistical Science
Reviewer, Biometrika
Reviewer, Statistics in Medicine
Reviewer, Scandinavian Journal of Statistics
Student representative, Statistics Department Climate and Diversity Committee, 2018 - 2019
President, UW-Madison Statistics Graduate Student Association, 2017 - 2018
Founder, UW-Madison ASA Student Chapter, 2017
Vice President, Jilin University Mathematical Modeling Association, 2009 - 2011

SKILLS

- Computer Skills: R, Python, Matlab, SAS (SAS Certified Base Programmer for SAS 9 & SAS Certified Advanced Programmer for SAS 9), Github, Linux, SQL, L^AT_EX
- Languages: English(fluent), Chinese(native)

Last updated date: February 25, 2023