Jared D. Huling

University of Minnesota School of Public Health
Division of Biostatistics and Health Data Science

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Education

2012 - 2017	Ph.D., Statistics, University of Wisconsin-Madison Advisors: Menggang Yu and Peter Chien
2008 - 2012	B.S., Actuarial Science, The Ohio State University *Summa cum Laude* with Honors, Minor: Mathematics

Academic Appointments

2020 - Present	Assistant Professor, Division of Biostatistics, School of Public Health, University of Minnesota
2017 - 2020	Assistant Professor, Department of Statistics, The Ohio State University
2017 - 2020	Affiliated Faculty, Translational Data Analytics Institute, The Ohio State University
2017 - 2020	Affiliated Biostatistics Faculty, Interdisciplinary Ph.D. Program in Biostatistics, The Ohio State University

Research Interests

Causal inference
Subgroup identification and precision medicine
Risk prediction
Statistical learning

Preprints

➜ * First author is student mentee of Dr. Huling

1. Barnard*, M., **Jared D. Huling**, and Wolfson, J. (2024+). A unified framework for causal estimand selection. *arXiv preprint arXiv:2410.12093*
2. Clark*, J. M., Rott, K. W., Hodges, J. S., and **Jared D. Huling** (2023). Transportability of principal causal effects. *arXiv preprint arXiv:2405.04419*
3. Wastvedt*, S., **Jared D. Huling**, and Wolfson, J. (2023). Counterfactual fairness for small subgroups. *arXiv preprint arXiv:2310.19988*
4. Jiang*, Z. and **Jared D. Huling** (2023+). Enhancing modified treatment policy effect estimation with weighted energy distance. *arXiv preprint arXiv:2310.11620.* [Distinguished Student Paper Award of the International Biometrics Society, ENAR Region, 2024; JSM Student Paper Competition Award, Health Policy Statistics Section, 2024]

5. Clark*, J. M., Rott, K. W., Hodges, J. S., and **Jared D. Huling** (2023). Causally-interpretable random-effects meta-analysis. *arXiv preprint arXiv:2302.03544*
6. Dai, X. and **Jared D. Huling** (2021+). Selection and estimation optimality in high dimensions with the TWIN penalty. *arXiv preprint arXiv:1806.01936*

Peer-Reviewed Publications

Statistical Methodology

➜ ‡ Co- senior authors

➜ * First author is student mentee of Dr. Huling

49. Lee, J., **Jared D. Huling**, and Chen, G. (2024). An effective framework for estimating individualized treatment rule with multi-category treatments. *NeurIPS, to appear*

48. Rott*, K. W., Clark, J. M., Murad, M. H., Hodges, J. S., and **Jared D. Huling** (2024). Causally interpretable meta-analysis combining aggregate and individual participant data. *American Journal of Epidemiology, to appear*

47. **Jared D. Huling**, Greifer, N., and Chen, G. (2024). Independence weights for causal inference with continuous treatments. *Journal of the American Statistical Association*, 119:1657–1670

46. Chen, R., **Jared D. Huling**, Chen, G., and Yu, M. (2024). Robust sample weighting to facilitate individualized treatment rule learning for a target population. *Biometrika*, 111:309–329

45. **Jared D. Huling** and Mak, S. (2024). Energy balancing of covariate distributions. *Journal of Causal Inference*, 12(1):20220029

44. Rott*, K. W., Bronfort, G., Chu, H., **Jared D. Huling**, Leininger, B., Murad, M. H., Wang, Z., and Hodges, J. S. (2023). Causally interpretable meta-analysis: Clearly defined causal effects and two case studies. *Research Synthesis Methods, to appear*

43. Wastvedt*, S., **Jared D. Huling**, and Wolfson, J. (2023). An intersectional framework for counterfactual fairness in risk prediction. *Biostatistics*, to appear

42. Maronge, J. M., **Jared D. Huling**, and Chen, G. (2023). A reluctant additive model framework for interpretable nonlinear individualized treatment rules. *Annals of Applied Statistics*, 17(4):3384–3402

41. **Jared D. Huling**, Lundine, J. P., and Leonard, J. C. (2023). Doubly structured sparsity for grouped multivariate responses with application to functional outcome score modeling. *Statistics in Medicine*, 42(15):2619–2636

40. Casiraghi, E., Wong, R., Hall, M., Coleman, B., Notaro, M., Evans, M. D., Tronieri, J. S., Blau, H., Laraway, B., Callahan, T. J., Chan, L. E., Bramante, C. T., Buse, J. B., Moffitt, R. A., Stürmer, T., Johnson, S. G., Raymond Shao, Y., Reese, J., Robinson, P. N., Paccanaro, A., Valentini, G., **Jared D. Huling**‡, and Wilkins‡, K. J. (2023). A method for comparing multiple imputation techniques: A case study on the U.S. national COVID cohort collaborative. *Journal of Biomedical Informatics*, 139:104295

39. Cheng, J. J., **Jared D. Huling**, and Chen, G. (2022). Meta-analysis of individualized treatment rules via sign-coherency. *Proceedings of the 2nd Machine Learning for Health Symposium, PMLR*, 193:171–198

38. **Jared D. Huling** and Chien, P. (2022). Fast penalized regression and cross validation for tall data with the `oem` package. *Journal of Statistical Software*, 104(6):1–24

37. **Jared D. Huling** and Yu, M. (2022). Sufficient dimension reduction for populations with structured heterogeneity. *Biometrics*, 78(4):1626–1638

36. Yu, M., Kuang, C., **Jared D. Huling**, and Smith, M. (2021). Diagnosis-group-specific transitional care program recommendations for 30-day rehospitalization reduction. *Annals of Applied Statistics*, 15(3):1478–1498

35. **Jared D. Huling** and Yu, M. (2021). Subgroup identification using the `personalized` package. *Journal of Statistical Software*, 98(5):1–60

34. **Jared D. Huling**, Smith, M. A., and Chen, G. (2021). A two-part framework for estimating individualized treatment rules from semi-continuous outcomes. *Journal of the American Statistical Association*, 116(533):210–223

33. **Jared D. Huling**, Yu, M., and O'Malley, A. J. (2019). Instrumental variable based estimation under the semiparametric accelerated failure time model. *Biometrics*, 75(2):516–527

32. **Jared D. Huling**, Yu, M., and Smith, M. (2019). Fused comparative intervention scoring for heterogeneity of longitudinal intervention effects. *Annals of Applied Statistics*, 13(2):824–847

31. **Jared D. Huling**, Yu, M., Liang, M., and Smith, M. (2018). Risk prediction for heterogeneous populations with application to hospital admission prediction. *Biometrics*, 74(2):557–565

30. Nie, X., **Jared Huling**, and Qian, P. Z. G. (2017). Accelerating large-scale statistical computation with the GOEM algorithm. *Technometrics*, 59(4):416–425

29. Xiong, S., Dai, B., **Jared Huling**, and Qian, P. Z. G. (2016). Orthogonalizing EM: A design-based least squares algorithm. *Technometrics*, 58(3):285–293

Interdisciplinary and Collaborative

➜ High impact medical/public health journals appear in blue

➜ ‡ Co- senior authors

28. Johnson, S. G., Abedian, S., Stürmer, T., **Jared D. Huling**, Lewis V, C., Buse, J. B., Brosnahan, S. B., Mudumbi, P. C., Erlandson, K. M., McComsey, G. A., Arnold, J., Wiggen, T. D., Wong, R., Murphy, S., Rosen, C., Kaushal, R., Weiner, M. G., and Bramante, C. T. (2024). Prevalent metformin use in adults with diabetes and the incidence of long COVID: An EHR-based cohort study from the RECOVER program. *Diabetes Care*

27. Wong, R., Hall, M. A., Wiggen, T. D., Johnson, S. G., , **Jared D. Huling**, Turner, L. E., Wilkins, K. J., Yeh, H.-C., Stürmer, T., Bramante, C. T., Buse, J. B., and Reusch, J. (2024). The effect of SARS-CoV-2 infection on incident diabetes by viral variant: Findings from the national COVID cohort collaborative (N3C). *Diabetes Care*

26. **Jared D. Huling**, Austin, R., Lu, S.-C., Mathiason, M. A., Pirsch, A., and Monsen, K. (2024). Comparison of weighting methods to understand improved outcomes attributable to public health nursing interventions. *Nursing Research*, in press

25. Bramante, C. T., Beckman, K. B., Mehta, T., Karger, A. B., Odde, D. J., Tignanelli, C. J., Buse, J. B., Johnson, M, D., Watson, HB, R., Daniel, J, J., Liebovitz, D. M., Nicklas, J. M., Cohen, K., Puskarich, M. A., Belani, H. K., Siegel, L. K., Klatt, N. R., Anderson, B., Hartman, K. M., Rao, V., Hagen, A. A., Patel, B., Fenno, S. L., Avula, N., Reddy, N. V., Erickson, S. M., Fricton, R. D., Lee, S., Griffiths, G., Pullen, M. F., Thompson, J. L., Sherwood, N., Murray, T. A., Rose, M. R., Boulware, D.R.‡, and **Jared D Huling**‡ (2024). Metformin reduces SARS-CoV-2 in a phase 3 randomized placebo controlled clinical trial. *Clinical Infectious Diseases*, to appear

24. Brady, S. S., Arguedas, A., **Jared D. Huling**, Helleman, G., Yaffe, K., Lewis, C., Fok, C., Van Den Eeden, S. K., and Markland, A. M. (2024). Cognitive function and bladder health among midlife adult women in the coronary artery risk development in young adults (cardia) study. *Menopause*, in press

23. Markland, A. M., Helleman, G., Shan, L., Brady, S. S., **Jared D. Huling**, Schreiner, P., Sidney, S., Van Den Eeden, S. K., and Lewis, C. (2024). Characterizing the spectrum of bladder health and lower urinary tract symptoms (LUTS) among men: Results from the cardia study. *Neurourology and Urodynamics*, in press

22. Brady, S. S., Arguedas, A., **Jared D. Huling**, Helleman, G., Lewis, C., Fok, C., Van Den Eeden, S. K., and Markland, A. M. (2023). Financial strain across 25 years and women's bladder health: A life course perspective. *Journal of Obstetrics & Gynecology*, in press

21. Brady, S. S., Arguedas, A., **Jared D. Huling**, Helleman, G., Lewis, C., Fok, C., Van Den Eeden, S. K., and Markland, A. M. (2023). Job strain, occupation, and bladder health among women. *Neurourology and Urodynamics*, in press

20. Yekula, A., Sreeram, S., Dhawan, S., Sharma, M., Sandoval-Garcia, C., **Jared D. Huling**, Suri, A., Belani, K., Park, M. C., Carter, B. S., and Chen, C. C. (2023). Neurosurgery residency match for international medical graduates in the United States. *Journal of Neurosurgery*, 1:1–8

19. Bramante, C. T., Buse, J. B., Liebovitz, D., Nicklas, J., Puskarich, M. A., Cohen, K., Belani, H., Anderson, B., **Jared D. Huling**, Tignanelli, C., Thompson, J., Pullen, M., Siegel, L., Proper, J., Odde, D. J., Klatt, N., Sherwood, N., Lindberg, S., Wirtz, E. L., Karger, A., Beckman, K., Erickson, S., Fenno, S., Hartman, K., Rose, M., Patel, B., Griffiths, G., Bhat, N., Murray, T. A., and Boulware, D. R. (2023). Outpatient treatment of covid-19 and incidence of post-COVID-19 condition over 10 months (COVID-OUT): a multicentre, randomised, quadruple-blind, parallel-group, phase 3 trial. *The Lancet Infectious Diseases, in press*

18. Lundine, J., **Jared D. Huling**, Adelson, P., Burd, R., Fuentes, M., Haarbauer-Krupa, J., Hagen, K., Iske, C., Koterba, C., Kurowski, B., Petrucci, S., Rose, S., Sadowsky, C., Westendorf, J., Truelove, A., and Leonard, J. (2023). Using billing codes to create a pediatric functional status e-score for children receiving inpatient rehabilitation. *Archives of Physical Medicine and Rehabilitation*, in press

17. Brady, S. S., Shan, L., Markland, A. M., **Jared D. Huling**, Arguedas, A., Fok, C. S., Van Den Eeden, S. K., and Lewis, C. E. (2023). Trajectories of depressive symptoms over 20 years and subsequent lower urinary tract symptoms and impact among women. *Menopause*, in press

16. Sharma, M., Do, T. H., Palzer, E. F., **Jared D. Huling**, and Chen, C. C. (2023). Comparable safety profile between neuro-oncology procedures involving stereotactic needle biopsy (SNB) followed by laser interstitial thermal therapy (LITT) and LITT alone procedures. *Journal of Neuro-Oncology*

15. Brady, S. S., Arguedas, A., **Jared D. Huling**, Shan, L., Lewis, C. E., Fok, C. S., Van Den Eeden, S. K., and Markland, A. M. (2023). Interpersonal stressors and resources for support: Associations with lower urinary tract symptoms and impact among women. *Journal of Women's Health*, in press

14. Brady, S. S., Arguedas, A., **Jared D. Huling**, Shan, L., Lewis, C. E., Fok, C. S., Van Den Eeden, S. K., and Markland, A. D. (2023). Adverse childhood experiences and lower urinary tract symptoms and impact among women. *The Journal of Urology*, 209(6):1167–1175

13. Neprash, H. T., McGlave, C. C., Cross, D. A., Virnig, B. A., Puskarich, M. A., **Jared D. Huling**, Rozenshtein, A. Z., and Nikpay, S. S. (2022). Trends in ransomware attacks on us hospitals, clinics, and other health care service providers, 2016-2021. *JAMA Health Forum*, 3(12):e224873

12. Singh, N., Madhira, V., Hu, C., Olex, A. L., Bergquist, T., Fitzgerald, K. C., **Jared D. Huling**, Patel, R. C., and Singh, J. A. (2023). Rituximab is associated with worse COVID-19 outcomes in patients with rheumatoid arthritis: A retrospective, nationally sampled cohort study from the U.S. National COVID Cohort Collaborative (N3C). *Seminars in Arthritis and Rheumatism*, 58:152149

11. Bramante, C. T., Johnson, S. G., Garcia, V., Evans, M. D., Harper, J., Wilkins, K. J., **Jared D. Huling**, Mehta, H., Alexander, C., Tronieri, J. S., Hong, S., Kahkoska, A., Alamgir, J., Hartman, K., Yang, K., Abrahamsen, T., Stürmer, T., and Buse, J. B. (2022). Diabetes medications and associations with COVID-19 outcomes in the N3C Database: A national retrospective cohort study. *PLOS One*, 17(11):e0271574

10. Wong, R., Vaddavalli, R., Hall, M. A., Patel, M. V., Bramante, C. T., Casarighi, E., Johnson, S. G., Lingam, V., Miller, J. D., Reusch, J., Saltz, M., Stürmer, T., Tronieri, J. S., Wilkins, K. J., Buse, J. B., Saltz, J., **Jared D. Huling**[‡], and Moffitt[‡], R. (2022). Effect of SARS-CoV-2 infection and infection severity on longer-term glycemic control and weight in people with type 2 diabetes. *Diabetes Care*, 45(11):2709–2717

9. Boulware, D. R., Murray, T. A., Proper, J. L., Tignanelli, C. J., Buse, J. B., Liebovitz, D. M., Nicklas, J. M., Cohen, K., Puskarich, M. A., Belani, H. K., Siegel, L. K., Klatt, N. R., Odde, D. J., Karger, A. B., Ingraham, N. E., Hartman, K. M., Hagen, A. A., Patel, B., Fenno, S. L., Avula, N., Reddy, N. V., Erickson, S. M., Lindberg, S., Fricton, R., Lee, S., Zaman, A., Saveraid, H. G., Tordsen, W. J., Pullen, M. F., Sherwood, N. E., **Jared D. Huling**, and Bramante, C. T. (2022). Impact of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccination and booster on coronavirus disease 2019 (COVID-19) symptom severity over time in the covid-out trial. *Clinical Infectious Diseases*

8. Bramante, C. T., **Jared D. Huling**, Tignanelli, C. J., Buse, J. B., Liebovitz, D. M., Nicklas, J. M., Cohen, K., Puskarich, M. A., Belani, H. K., Proper, J. L., Siegel, L. K., Klatt, N. R., Odde, D. J., Luke, D. G., Anderson, B., Karger, A. B., Ingraham, N. E., Hartman, K. M., Rao, V., Hagen, A. A., Patel, B., Fenno, S. L., Avula, N., Reddy, N. V., Erickson, S. M., Lindberg, S., Fricton, R., Lee, S., Zaman, A., Saveraid, H. G., Tordsen, W. J., Pullen, M. F., Biros, M., Sherwood, N. E., Thompson, J. L., Boulware, D. R., and Murray, T. A. (2022). Randomized trial of Metformin, Ivermectin, and Fluvoxamine for Covid-19. *New England Journal of Medicine*, 387(7):599–610

7. Smith, M., Yu, M., **Jared D. Huling**, Wang, X., DeLonay, A., and Jaffery, J. (2022). Impactability models for high-need high-cost patients: Evaluating their effectiveness in reducing Medicare ACO payments and hospital events. *Journal of Medical Internet Research*, 24(6):e29420

6. Cramer, S. W., Do, T. H., Palzer, E. F., Naik, A., Rice, A. L., Novy, S. G., Hanson, J. T., Piazza, A. N., Howard, M. A., **Jared D. Huling**, Chen, C. C., and McGovern, R. A. (2022). Persistent racial disparities in deep brain stimulation for Parkinson's disease. *Annals of Neurology*, 92(2):246–254

5. Do, T. H., Lu, J., Palzer, E. F., Cramer, S. W., **Jared D. Huling**, Johnson, R. A., Zhu, P., Jean, J. N., Howard, M. A., Sabal, L. T., Hanson, J. T., Jonason, A. B., Sun, K. W., McGovern, R. A., and Chen, C. C. (2022+). Rates of operative intervention for infection after synthetic or autologous cranioplasty: a National Readmissions Database analysis. To appear in *Journal of Neurosurgery*

4. **Jared D. Huling**, Austin, R. R., Lu, S.-C., Doran, M., Swarr, V., and Monsen, K. A. (2022). Examining public health nurse interventions for families at risk of referral to child welfare services using modified treatment policy analysis. *American Journal of Public Health*, 112(S3):S306–S313

3. Bramante, C. T., Proper, J. L., Boulware, D. R., Karger, A. B., Murray, T., Rao, V., Hagen, A., Tignanelli, C. J., Puskarich, M., Cohen, K., Liebovitz, D. M., Klatt, N. R., Broedlow, C., Hartman, K. M., Nicklas, J., Ibrahim, S., Zaman, A., Saveraid, H., Belani, H., Ingraham, N., Christensen, G., Siegel, L., Sherwood, N. E., Fricton, R., Lee, S., Odde, D. J., Buse, J. B., and **Jared D. Huling** (2022). Vaccination against SARS-CoV-2 is associated with a lower viral load and likelihood of systemic symptoms. *Open Forum Infectious Diseases*, 5(5):ofac066

2. Johnson, R. A., Do, T. H., Palzer, E. F., Cramer, S. W., Hanson, J. T., **Jared D. Huling**, Hoody, D. G., Rice, A. L., Piazza, A. N., Howard, M. A., McGovern, R. A., and Chen, C. C. (2021). Pattern of technology diffusion in the adoption of stereotactic laser interstitial thermal therapy (LITT) in neuro-oncology. *Journal of Neuro-Oncology*, 153(3):417–424

1. Richards Adams, I. K., Figueroa, W., Hatsu, I., Odei, J. B., Sotos-Prieto, M., Leson, S., **Jared D. Huling**, and Joseph, J. J. (2019). An examination of demographic and psychosocial factors, barriers to healthy eating, and diet quality among African American adults. *Nutrients*, 11(3):519

Research Support

Current Support

1.	PCORI ME-2023C1-32148	03/01/1024 - 05/31/1027

Improving Heterogeneous Effect Estimation by Integration of Experimental and Observational Studies

Total cost: $1,059,541

Role: **Multiple PI** (with A. Asiaee)

2. PCORI ME-2022C1-26326 03/01/2023 - 03/01/2026

   Data-adaptive readmissions models for heterogeneous and longitudinal data

   Total cost: $1,045,563

   Role: **PI**

3. FDA U01FD008147 09/25/2023 - 09/24/2026

   Managing Perioperative Pain with Abdominal Laparoscopic Surgery: A Collaborative to Develop, Disseminate, and Evaluate Evidence-Based Practices (M-PALS Collaborative)

   Total cost: $1,999,998

   Role: **Co-I**

4. R01 AG079118-01 09/15/22-06/30/27

   Calculator for Length of use of bisphosphonates (CLUB)

   Total cost: $1,051,416

   Role: **Co-I** (PI L. Carbone)

5. AHRQ R21 1R21HS028865-01 04/01/2022 - 03/31/2023

   Use of EHR Metadata to Assess Hospital Discharge Planning for Post-Acute Transitions

   Total cost: $162,312

   Role: **Co-I** (PI D. Cross)

6. NIDDK R01 08/15/2021 - 07/31/2025

   CARDIA-PLUS: A Life Course Investigation of Biopsychosocial Pathways to Lower Urinary Tract Symptoms and Bladder Health

   Role: **Co-I** (PI S. Brady)

Completed Support

7. R01 DK130351-02S1 09/01/22-08/31/2023

   Incidence and severity of onset diabetes associated with SARS-CoV-2 Infection

   Total cost: $405,975

   Role: **Co-I** (PI J. Reusch and R. Wong; local PI: S. Johnson)

8. The Rainwater Charitable Foundation 07/01/2021 - 12/31/2022

Metformin for Outpatient Treatment of SARS-CoV-2 Infection: A Randomized Clinical Trial

Role: **Co-I** (PI C. Bramante)

9. NICHD R03 1R03HD101083-01 08/01/2020 - 07/31/2022

Pilot Study to Develop a Functional Status Score for Children with Acute Neurologic Illnesses and Injuries

Total cost: $316,100

Role: **PI** (**Multi-PI** with J. Lundine)

10. Parsemus Foundation 12/24/2020-7/18/2021

MET-COVID: Metformin for Prevention and Outpatient Treatment of COVID-19

Role: **Co-I**

11. PCORI ME-1409-21219

Matching Complex Patients to Treatments: Innovative Statistical Scoring Methods for Treatment Selection

Total cost: $1,459,660

Role: **Research Assistant** (09/01/15-08/31/17), **Subcontract PI** (09/01/17-10/31/18)

Selected Awards and Honors

2017 **Travel Award** BiostatMCW - Biostatistics in the Modern Computing Era

2016 **Student Travel Award** Spring Research Conference on Statistics in Industry and Technology

2015 **Student Travel Award** International Conference on Health Policy Statistics

Teaching

University of Minnesota

Fall 2024 Instructor for PubH 8485 - Advanced Causal Inference

Fall 2023 Instructor for PubH 7401 - Fundamentals of Biostatistical Inference

Spring 2023 Instructor for PubH 7406 - Biostatistical Inference II

Spring 2022 Instructor for PubH 7406 - Biostatistical Inference II

Spring 2021 Instructor for PubH 7406 - Advanced Regression and Design

The Ohio State University

Spring 2020	Instructor for Statistics 3302 - Statistical Modeling for Discovery II
Autumn 2019	Instructor for Statistics 6730 - Introduction to Computational Statistics
Spring 2019	Instructor for Statistics 7605 - Advanced Regression Modeling of Time-to-Event Data
Autumn 2018	Instructor for Statistics 6450 - Applied Regression Analysis
Autumn 2017	Instructor for Statistics 6450 - Applied Regression Analysis

Short Courses and Other

Apr 2017	(With Menggang Yu) taught short course *Subgroup Analysis and Treatment Scoring with Application in Precision Medicine*, New England Statistics Symposium 2017
Jul-Aug 2013, 2014, 2015	Teaching Assistant for the Summer Institute in Biostatistics program

Advising

PhD Students/Mentees

2024 –	Wei Wang
2024 –	Martha Barnard (Joint with Julian Wolfson)
2024 –	Rui Zhang (Statistics, Joint with Charles Doss)
2024 –	Nitya Shah
2024 –	Milena Silva (Joint with Joe Koopmeiners and Lianne Siegel)
2023 –	Ziren Jiang
2022 –	Simion De (Joint with Saonli Basu)

Past PhD Students/Mentees

2021 – 2024	Kollin Rott (Joint with James Hodges), Oregon State University, Assistant Professor of Teaching
2021 – 2024	Justin Clark (Joint with James Hodges), Analysis Group
2021 – 2024	Solvejg Wastvedt (Joint with Julian Wolfson), NORC at the University of Chicago

PhD Dissertation Committees in Non-chair Role

2022	Jay Jojo Cheng (Biomedical Data Science, Ph.D., University of Wisconsin-Madison Department of Biostatistics and Medical Informatics)
2022	Han Fu (Biostatistics, Ph.D., Ohio State University)
2022	Vanessa Griggs (Epidemiology, Ph.D., Ohio State University)

MS Mentees

2024	Katherine Giorgio (Biostatistics, M.S.)
2022	Daniel Whitford (Biostatistics, M.S.)
2021	Mohamad Burjak (Biostatistics, M.S.), Biostatistician, Johns Hopkins Bloomberg School of Public Health

Students/Mentees with Awards

Ziren Jiang	**Distinguished Student Paper Award of the International Biometrics Society, ENAR Region**, 2024; **JSM Student Paper Competition Award**, Health Policy Statistics Section of the American Statistical Association, 2024
Kollin Rott	**Distinguished Student Paper Award of the International Biometrics Society, ENAR Region**, 2024
Solvejg Wastvedt	**Student Travel Award**, International Conference on Health Policy Statistics, 2023

Research Assistants Supervised

2022 - present	Andrés Arguedas
2023 - present	Nitya Shah
2023 - present	Wei Wang
2023 - present	Ziren Jiang
2023 - present	Lingfeng Huo
2022 - 2023	Tanvi Mehta
2022 - 2024	Kollin Rott
2022 - 2024	Justin Clark
2023 - 2023	Jonathan Kim

Other

Jun-Aug 2015	Mentored Joseph Sauder in the Computational Biology and Biostatistics Summer Research Program

Service

Associate Editor	*Biometrical Journal*	2020-present
Reviewer	*Biometrics*	
	Biometrika	

	Brazilian Journal of Probability and Statistics
	Computational Statistics and Data Analysis
	ENAR Student Paper Competition
	Journal of the American Statistical Association (Theory & Methods)
	Journal of the American Statistical Association (Applications & Case Studies)
	Journal of Computational and Graphical Statistics
	Journal of Nonparametric Statistics
	Journal of the Royal Statistical Society, Series B
	Journal of Statistical Software
	Statistics in Medicine

Member	American Statistical Association	2015-present
	International Biometric Society (East North American Region)	2017-present

Departmental	University of Minnesota Biostatistics Seminar Committee Chair	2021–2023
	University of Minnesota Biostatistics Seminar Committee	2020–2023
	University of Minnesota Biostatistics Diversity, Climate, and Inclusion Committee	2021–2022
	OSU Biostatistics Program Graduate Studies Committee	2018-2019
	OSU Biostatistics Ph.D. Program Admissions Committee	2018-2019
	OSU Masters of Applied Statistics Qualifying Exam Committee	Winter 2018, 2019, Spring 2019

Presentations

Invited Talks

Aug 2024	*Risk modeling, causal inference, and subgroup identification: three key statistical ingredients to effective learning health systems*, Joint Statistical Meetings 2024, Portland, OR
Feb 2024	*Transportability of Principal Causal Effects*, StatShare Community of Practice Seminar, Biostatistics and Medical Informatics, University of Wisconsin-Madison
Nov 2023	*Independence weights for causal inference with continuous treatments*, Seminar, School of Statistics, University of Minnesota
Nov 2023	*Transportability of Principal Causal Effects*, ICERM workshop: Extending Inferences to a New Target Population, Brown University
Apr 2023	*Subgroup identification and precision medicine with the* {`personalized`} *R package*, PSI Subgroup Analysis Special Interest Group

Mar 2023	*Energy Balancing of Covariate Distributions for Estimation of Causal Effects*, Biostatistics and Bioinformatics Seminar, Department of Epidemiology & Biostatistics, University of California, San Francisco
Dec 2022	*Independence weights for causal inference with continuous treatments*, CMStatistics, 2022
Nov 2022	*Independence weights for causal inference with continuous treatments*, Biostatistics Seminar, Northwestern University
Aug 2022	*Energy Balancing of Covariate Distributions for Estimation of Causal Effects*, Joint Statistical Meetings 2022, Washington, D.C.
July 2022	*Results From the COVID-OUT Trial, a Phase-3 trial of Outpatient Treatment for Covid-19 Using Metformin, Ivermectin, and Fluvoxamine*, NIH Pragmatic Trials Collaboratory Grand Rounds: Rethinking Clinical Trials, with Carolyn Bramante and Thomas Murray
Apr 2022	*Independence weights for causal inference with continuous treatments*, Waterloo Conference in Statistics, Actuarial Science, and Finance, 2022
Oct 2021	*Energy Balancing of Covariate Distributions for Estimation of Causal Effects*, Biostatistics Seminar, Department of Biostatistics, University of Pittsburgh
Oct 2021	*Energy Balancing of Covariate Distributions for Estimation of Causal Effects*, Biostatistics Seminar Series, Department of Biostatistics Epidemiology and Informatics, University of Pennsylvania
Mar 2021	*Energy Balancing of Covariate Distributions for Estimation of Causal Effects*, Biostatistics Colloquium, School of Public Health, Louisiana State University
Mar 2021	*Diagnosis-Group-Specific Translational Care Program Recommendation for Thirty-Day Rehospitalization Reduction*, ENAR, 2021
Sep 2020	*Energy Balancing of Covariate Distributions for Estimation of Causal Effects*, Seminar, Department of Statistical Science, Duke University
Jan 2020	*Energy Balancing of Covariate Distributions for Estimation of Causal Effects*, Seminar, Division of Biostatistics, University of Minnesota
Jan 2020	*Semiparametric Sufficient Dimension Reduction for Heterogeneous Populations with Application to Health System Risk Modeling*, Seminar, Department of Statistics and Actuarial Science, University of Waterloo
Dec 2019	*Energy Balancing of Covariate Distributions*, Seminar, Department of Statistics, University of Illinois at Urbana-Champaign
Dec 2019	*Comparative intervention scoring for assessing heterogeneity of long-term health system intervention effects*, CMStatistics, London, 2019
Aug 2019	*Comparative Intervention Scoring for Assessing Heterogeneity of Long-Term Health System Intervention Effects* and *Diagnosis-Group-Specific Translational Care Program Recommendation for Thirty-Day Rehospitalization Reduction*, ISBS Kyoto, 2019

Jun 2019	*Semiparametric Sufficient Dimension Reduction for Heterogeneous Populations with Application to Health System Risk Modeling*, Seminar, Division of Biostatistics, University of Toronto
Jun 2019	*Comparative Intervention Scoring for Assessing Heterogeneity of Long-Term Health System Intervention Effects*, ICSA Applied Statistics Symposium, 2019
Jun 2018	*Risk Prediction for Heterogeneous Populations with Application to Hospital Admission Prediction*, ICSA Applied Statistics Symposium, 2018
Jun 2018	*Neural Networks for Flexible and Fast Emulation of Computer Experiments*, Joint Research Conference 2018
Apr 2018	*Comparative Intervention Scoring for Assessing Heterogeneity of Long-Term Health System Intervention Effects*, Joint Biostatistics Symposium, The Ohio State University
Apr 2017	*Heterogeneity of Intervention Effects and Subgroup Identification Based on Longitudinal Outcomes*, New England Statistics Symposium 2017
Feb 2017	*Addressing Population Heterogeneity in Hospital System Modeling*, Emory University, Biostatistics Seminar
Feb 2017	*Addressing Population Heterogeneity in Hospital System Modeling*, The Ohio State University, Statistics Seminar
Aug 2016	*Deep Learning for Emulation in Uncertainty Quantification*, Joint Statistical Meetings 2016
Apr 2016	*Endovascular vs. Open Surgery: Analysis of Survival Outcomes Using Instrumental Variables*, Dartmouth, Department of Biomedical Data Science - Biostatistics Seminar

Contributed Talks

Jan 2023	*Independence weights for causal inference with continuous treatments*, International Conference on Health Policy Statistics, 2023
Aug 2021	*Subgroup Identification and Precision Medicine with the* `personalized` *R Package*, R/Medicine Conference, Virtual 2021, `https://youtu.be/XzoJe2mLj18`
Jul 2019	*Semiparametric Sufficient Dimension Reduction for Populations with Structured Heterogeneity*, Joint Statistical Meetings, Denver 2019
Jul 2019	*Comparative intervention scoring for assessing heterogeneity of long-term health system intervention effects*, ISCB, Leuven 2019
Jul 2018	*Semiparametric Sufficient Dimension Reduction for Heterogeneous Populations with Application to Health System Risk Modeling*, IBC Barcelona 2018
Jan 2018	*Risk Prediction for Heterogeneous Populations with Application to Hospital Admission Prediction*, ICHPS 2018

Sep 2017	*Risk Prediction for Heterogeneous Populations with Application to Hospital Admission Prediction*, BiostatMCW 2017
Mar 2017	*Statistical Modeling for Heterogeneous Populations with Application to Hospital Admission Prediction*, ENAR 2017
May 2016	*Stabilizing Gradient Enhanced Kriging with Sparsity Constraints*, Spring Research Conference on Statistics in Industry and Technology
Sep 2015	*Instrumental Variable Estimation in Censored Regression*, UW-Madison Department of Statistics Student Seminar.
May 2014	*Individualized Treatment Rules with Multinomial Outcome Weighted Learning*, Biostatistics and Medical Informatics Trainee Seminar.
Dec 2013	*Endovascular vs. Open Surgery: Analysis of Survival Outcomes Using Instrumental Variables*, Biostatistics and Medical Informatics Trainee Seminar.
May 2013	*Hidden Markov Models and Fisher Scores for Surgical Skill Modeling*, Biostatistics and Medical Informatics Trainee Seminar.
Dec 2012	*Does Surrogate Selection of T-cells Preferentially Sample Expanded Clones?*, Biostatistics and Medical Informatics Trainee Seminar.

Contributed Posters

Jul 2019	*Semiparametric Sufficient Dimension Reduction for Populations with Structured Heterogeneity*, New Researchers Conference, Colorado State University 2019
Oct 2015	*Mortality Comparison of Endovascular versus Open Repair for Abdominal Aortic Aneurysm using Instrumental Variables*, Poster, International Conference on Health Policy Statistics

Computing

Software Most of my open-source software is available for download at my GitHub site: github.com/jaredhuling

- `personalized` – An `R` package with estimation and evaluation methods for subgroup identification / personalized medicine for observational studies and randomized controlled trials. Available at cran.r-project.org/package=personalized. Documentation available at jaredhuling.org/personalized/.
- `personalizedLong` – An `R` package with estimation and evaluation methods for subgroup identification / personalized medicine for longitudinal studies. Available at github.com/jaredhuling/personalizedLong.

- `personalized2part` – An `R` package for subgroup identification/precision medicine for semi-continuous outcomes with high-dimensional data. Available at github.com/jaredhuling/personalized2part and cran.r-project.org/package=personalized2part.
- `mpersonalized` – An `R` package with estimation and evaluation methods for subgroup identification / personalized medicine for individual patient data meta analyses, integrative analyses, or multiple outcome data. Available at github.com/jaredhuling/mpersonalized.
- `independenceWeights` – An `R` package for construction of flexible and robust weights for confounding control for continuous treatments. Available at github.com/jaredhuling/independenceWeights and cran.r-project.org/package=independenceWeights.
- `oem` – An `R` package for the efficient computation of a wide variety of penalized linear regression models for tall data. Available at cran.r-project.org/package=oem. Documentation available at jaredhuling.org/oem/.
- `vennLasso` – An `R` package for variable selection for heterogeneous populations. Available at cran.r-project.org/package=vennLasso. Documentation available at jaredhuling.org/vennLasso/.
- `hierSDR` – An `R` package for semiparametric hierarchical sufficient dimension reduction. Available at github.com/jaredhuling/hierSDR and cran.r-project.org/package=hierSDR.
- `aftiv` – An `R` package for instrumental variable estimation for time-to-event outcomes under the semiparametric accelerated failure time model. Available at github.com/jaredhuling/aftiv.
- `OrthogEM.jl` – A `Julia` package for penalized regression using the OEM algorithm. Available at github.com/jaredhuling/OrthogEM.jl.

Languages: `R`, `C++`, `Python`, `Javascript`, LaTeX

Last updated: October 18, 2024