Email:

huling@umn.edu

Website: jaredhuling.org

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

### 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. Jiang\*, Z. and **Jared D. Huling** (2023+). Enhancing modified treatment policy effect estimation with weighted energy distance. arXiv preprint arXiv:2310.11620
  - 2. 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
  - 3. 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

- → <sup>‡</sup> Co- senior authors
- → \* First author is student mentee of Dr. Huling
  - 41. **Jared D. Huling** and Mak, S. (2023). Energy balancing of covariate distributions. *Journal of Causal Inference*, to appear
  - 40. 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
  - 39. Wastvedt\*, S., **Jared D. Huling**, and Wolfson, J. (2023). An intersectional framework for counterfactual fairness in risk prediction. *Biostatistics*, to appear
  - 38. Chen, R., **Jared D. Huling**, Chen, G., and Yu, M. (2023). Robust sample weighting to facilitate individualized treatment rule learning for a target population. *Biometrika*, to appear
  - 37. **Jared D. Huling**, Greifer, N., and Chen, G. (2023). Independence weights for causal inference with continuous treatments. *Journal of the American Statistical Association*, to appear
  - 36. 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*, to appear
  - 35. **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
  - 34. 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<sup>‡</sup>, and Wilkins<sup>‡</sup>, 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
  - 33. 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
  - 32. **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

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

- 30. 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
- 29. **Jared D. Huling** and Yu, M. (2021). Subgroup identification using the personalized package. *Journal of Statistical Software*, 98(5):1–60
- 28. **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
- 27. **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
- 26. **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
- 25. **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
- 24. Nie, X., **Jared Huling**, and Qian, P. Z. G. (2017). Accelerating large-scale statistical computation with the GOEM algorithm. *Technometrics*, 59(4):416–425
- 23. 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
- → <sup>‡</sup> Co- senior authors
  - 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

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
- 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

- 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<sup>‡</sup>, and Moffitt<sup>‡</sup>, 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
- 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

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*
- 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
- 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
- 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-2022C1-26326

03/01/2023 - 03/01/2026

Data-adaptive readmissions models for heterogeneous and longitudinal data

Total cost: \$1,045,563

Role: PI

2. 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)

3. 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)

4. 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)

5. 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)

6. 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)

7. 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)

#### Completed Support

8. Parsemus Foundation

12/24/2020-7/18/2021

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

Role: Co-I

9. 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

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

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

# Advising

### PhD Students/Mentees

2023 -	Ziren Jiang
2022 -	Simion De (Joint with Saonli Basu)
2021 -	Justin Clark (Joint with James Hodges)
2021 -	Kollin Rott (Joint with James Hodges)

2021 – Solvejg Wastvedt (Joint with Julian Wolfson)

### 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

Expected 2023	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

### Research Assistants Supervised

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

### 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

University of Minnesota Biostatistics Seminar Committee

University of Minnesota Biostatistics Diversity, Climate, and Inclusion Committee  $2021\hbox{--}2022$ 

OSU Biostatistics Program Graduate Studies Committee

2018-2019

2021 -

2020 -

OSU Biostatistics Ph.D. Program Admissions Committee

2018-2019

OSU Masters of Applied Statistics Qualifying Exam Committee 2019, Spring 2019

ommittee Winter 2018,

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### **Presentations**

#### **Invited Talks**

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, 2022
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 Pro- gram 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	eq: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

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