

# Jared D. Huling

University of Minnesota  
Division of Biostatistics

Email: [huling@umn.edu](mailto:huling@umn.edu)  
Website: [jaredhuling.org](http://jaredhuling.org)

## 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 <i>Summa cum Laude</i> 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. 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*
2. Wastvedt\*, S., **Jared D. Huling**, and Wolfson, J. (2022+). An intersectional framework for counterfactual fairness in risk prediction. *arXiv preprint arXiv:2210.01194*
3. Chen, R., **Jared D. Huling**, Chen, G., and Yu, M. (2021+). Robust sample weighting to facilitate individualized treatment rule learning for a target population. *arXiv preprint arXiv:2105.00581*. Submitted
4. **Jared D. Huling** and Mak, S. (2021+). Energy balancing of covariate distributions. *arXiv preprint arXiv:2004.13962*
5. 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

34. 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
33. **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
32. **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*, to appear
31. 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
30. 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
29. **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
28. **Jared D. Huling** and Yu, M. (2022). Sufficient dimension reduction for populations with structured heterogeneity. *Biometrics*, 78(4):1626–1638
27. 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
26. **Jared D. Huling** and Yu, M. (2021). Subgroup identification using the personalized package. *Journal of Statistical Software*, 98(5):1–60
25. **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

24. **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
23. **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
22. **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
21. Nie, X., **Jared Huling**, and Qian, P. Z. G. (2017). Accelerating large-scale statistical computation with the GOEM algorithm. *Technometrics*, 59(4):416–425
20. 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

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 the development of long COVID over 10 months: A multi-center, quadruple-blind, parallel group randomized 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 wome. *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*
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**<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., Friction, 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., Friction, 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., Puskasich, 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., Friction, 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-2022C1-26326  | 03/01/2023 - 03/01/2026 |
|    | Data-adaptive readmissions models for heterogeneous and longitudinal data            |                         |
|    | Total cost: \$1,045,563  |                         |
|    | Role: <b>PI</b>  |                         |
| 2. | R01 AG079118-01  | 09/15/22-06/30/27       |
|    | Calculator for Length of use of bisphosphonates (CLUB)                               |                         |
|    | Total cost: \$1,051,416  |                         |
|    | Role: <b>Co-I</b> (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: <b>Co-I</b> (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  |                         |

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|----|---|-------------------------|
|    | Role: <b>Co-I</b> (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: <b>Co-I</b> (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: <b>Co-I</b> (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: <b>PI (Multi-PI with J. Lundine)</b>  |                         |

### Completed Support

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|----|---|----------------------|
| 8. | Parsemus Foundation   | 12/24/2020-7/18/2021 |
|    | MET-COVID: Metformin for Prevention and Outpatient Treatment of COVID-19                                |                      |
|    | Role: <b>Co-I</b>   |                      |
| 9. | PCORI ME-1409-21219   |                      |
|    | Matching Complex Patients to Treatments: Innovative Statistical Scoring Methods for Treatment Selection |                      |
|    | Total cost: \$1,459,660   |                      |
|    | Role: <b>Research Assistant</b> (09/01/15-08/31/17), <b>Subcontract PI</b> (09/01/17-10/31/18)          |                      |

### Selected Awards and Honors

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|------|---|
| 2017 | <b>Travel Award</b> BiostatMCW - Biostatistics in the Modern Computing Era                      |
| 2016 | <b>Student Travel Award</b> Spring Research Conference on Statistics in Industry and Technology |
| 2015 | <b>Student Travel Award</b> 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

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

## Advising

### PhD Students/Mentees

2022 –	Simion De
2021 –	Solvejg Wastvedt (Joint with Julian Wolfson)
2021 –	Justin Clark
2021 –	Kollin Rott (Joint with James Hodges)

### PhD Dissertation Committees in Non-chair Role

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
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## Other

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

Associate Editor	<i>Biometrical Journal</i>	2020-present
Reviewer	<i>Biometrics</i> <i>Biometrika</i> <i>Brazilian Journal of Probability and Statistics</i> <i>Computational Statistics and Data Analysis</i> <i>ENAR Student Paper Competition</i> <i>Journal of the American Statistical Association (Theory &amp; Methods)</i> <i>Journal of the American Statistical Association (Applications &amp; Case Studies)</i> <i>Journal of Computational and Graphical Statistics</i> <i>Journal of Nonparametric Statistics</i> <i>Journal of the Royal Statistical Society, Series B</i> <i>Journal of Statistical Software</i> <i>Statistics in Medicine</i>	
Member	American Statistical Association	2015-present
	International Biometric Society (East North American Region)	2017-present
Departmental	University of Minnesota Biostatistics Seminar Committee Chair	2021–
	University of Minnesota Biostatistics Seminar Committee	2020–
	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

Apr 2023	<i>Subgroup identification and precision medicine with the <code>{personalized}</code> R package</i> , PSI Subgroup Analysis Special Interest Group
Mar 2023	<i>Energy Balancing of Covariate Distributions for Estimation of Causal Effects</i> , Biostatistics and Bioinformatics Seminar, Department of Epidemiology & Biostatistics, University of California, San Francisco
Dec 2022	<i>Independence weights for causal inference with continuous treatments</i> , CMStatistics, 2022
Nov 2022	<i>Independence weights for causal inference with continuous treatments</i> , Biostatistics Seminar, Northwestern University, 2022
Aug 2022	<i>Energy Balancing of Covariate Distributions for Estimation of Causal Effects</i> , Joint Statistical Meetings 2022, Washington, D.C.
July 2022	<i>Results From the COVID-OUT Trial, a Phase-3 trial of Outpatient Treatment for Covid-19 Using Metformin, Ivermectin, and Fluvoxamine</i> , NIH Pragmatic Trials Collaboratory Grand Rounds: Rethinking Clinical Trials, with Carolyn Bramante and Thomas Murray
Apr 2022	<i>Independence weights for causal inference with continuous treatments</i> , Waterloo Conference in Statistics, Actuarial Science, and Finance, 2022
Oct 2021	<i>Energy Balancing of Covariate Distributions for Estimation of Causal Effects</i> , Biostatistics Seminar, Department of Biostatistics, University of Pittsburgh
Oct 2021	<i>Energy Balancing of Covariate Distributions for Estimation of Causal Effects</i> , Biostatistics Seminar Series, Department of Biostatistics Epidemiology and Informatics, University of Pennsylvania
Mar 2021	<i>Energy Balancing of Covariate Distributions for Estimation of Causal Effects</i> , Biostatistics Colloquium, School of Public Health, Louisiana State University
Mar 2021	<i>Diagnosis-Group-Specific Translational Care Program Recommendation for Thirty-Day Rehospitalization Reduction</i> , ENAR, 2021
Sep 2020	<i>Energy Balancing of Covariate Distributions for Estimation of Causal Effects</i> , Seminar, Department of Statistical Science, Duke University
Jan 2020	<i>Energy Balancing of Covariate Distributions for Estimation of Causal Effects</i> , Seminar, Division of Biostatistics, University of Minnesota
Jan 2020	<i>Semiparametric Sufficient Dimension Reduction for Heterogeneous Populations with Application to Health System Risk Modeling</i> , Seminar, Department of Statistics and Actuarial Science, University of Waterloo
Dec 2019	<i>Energy Balancing of Covariate Distributions</i> , Seminar, Department of Statistics, University of Illinois at Urbana-Champaign

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

## Contributed Talks

Jan 2023	<i>Independence weights for causal inference with continuous treatments</i> , International Conference on Health Policy Statistics, 2023
Aug 2021	<i>Subgroup Identification and Precision Medicine with the <b>personalized</b> R Package</i> , R/Medicine Conference, Virtual 2021, <a href="https://youtu.be/XzoJe2mLj18">https://youtu.be/XzoJe2mLj18</a>
Jul 2019	<i>Semiparametric Sufficient Dimension Reduction for Populations with Structured Heterogeneity</i> , Joint Statistical Meetings, Denver 2019

Jul 2019	<i>Comparative intervention scoring for assessing heterogeneity of long-term health system intervention effects</i> , ISCB, Leuven 2019
Jul 2018	<i>Semiparametric Sufficient Dimension Reduction for Heterogeneous Populations with Application to Health System Risk Modeling</i> , IBC Barcelona 2018
Jan 2018	<i>Risk Prediction for Heterogeneous Populations with Application to Hospital Admission Prediction</i> , ICHPS 2018
Sep 2017	<i>Risk Prediction for Heterogeneous Populations with Application to Hospital Admission Prediction</i> , BiostatMCW 2017
Mar 2017	<i>Statistical Modeling for Heterogeneous Populations with Application to Hospital Admission Prediction</i> , ENAR 2017
May 2016	<i>Stabilizing Gradient Enhanced Kriging with Sparsity Constraints</i> , Spring Research Conference on Statistics in Industry and Technology
Sep 2015	<i>Instrumental Variable Estimation in Censored Regression</i> , UW-Madison Department of Statistics Student Seminar.
May 2014	<i>Individualized Treatment Rules with Multinomial Outcome Weighted Learning</i> , Biostatistics and Medical Informatics Trainee Seminar.
Dec 2013	<i>Endovascular vs. Open Surgery: Analysis of Survival Outcomes Using Instrumental Variables</i> , Biostatistics and Medical Informatics Trainee Seminar.
May 2013	<i>Hidden Markov Models and Fisher Scores for Surgical Skill Modeling</i> , Biostatistics and Medical Informatics Trainee Seminar.
Dec 2012	<i>Does Surrogate Selection of T-cells Preferentially Sample Expanded Clones?</i> , Biostatistics and Medical Informatics Trainee Seminar.

## Contributed Posters

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

## Computing

<b>Software</b>	Most of my open-source software is available for download at my GitHub site: <a href="https://github.com/jaredhuling">github.com/jaredhuling</a>
	<ul style="list-style-type: none"> <li>• <b>personalized</b> – An R package with estimation and evaluation methods for subgroup identification / personalized medicine for observational studies and randomized controlled trials. Available at <a href="https://cran.r-project.org/package=personalized">cran.r-project.org/package=personalized</a>. Documentation available at <a href="https://jaredhuling.org/personalized/">jaredhuling.org/personalized/</a>.</li> </ul>

- **personalizedLong** – An R package with estimation and evaluation methods for subgroup identification / personalized medicine for longitudinal studies. Available at [github.com/jaredhuling/personalizedLong](https://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](https://github.com/jaredhuling/personalized2part) and [cran.r-project.org/package=personalized2part](https://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](https://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](https://github.com/jaredhuling/independenceWeights) and [cran.r-project.org/package=independenceWeights](https://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](https://cran.r-project.org/package=oem). Documentation available at [jaredhuling.org/oem/](https://jaredhuling.org/oem/).
- **vennLasso** – An R package for variable selection for heterogeneous populations. Available at [cran.r-project.org/package=vennLasso](https://cran.r-project.org/package=vennLasso). Documentation available at [jaredhuling.org/vennLasso/](https://jaredhuling.org/vennLasso/).
- **hierSDR** – An R package for semiparametric hierarchical sufficient dimension reduction. Available at [github.com/jaredhuling/hierSDR](https://github.com/jaredhuling/hierSDR) and [cran.r-project.org/package=hierSDR](https://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](https://github.com/jaredhuling/aftiv).
- **OrthogEM.jl** – A Julia package for penalized regression using the OEM algorithm. Available at [github.com/jaredhuling/OrthogEM.jl](https://github.com/jaredhuling/OrthogEM.jl).

**Languages:** R, C++, Python, Javascript,  $\text{\LaTeX}$

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