# Jared D. Huling

University of Minnesota      Email:   huling@umn.edu
Division of Biostatistics      Website: jaredhuling.org

## Education

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

## Academic Appointments

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|---|---|
| 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

Subgroup identification and precision medicine

Risk prediction

Causal inference

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

33. 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

32. **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

31. **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

30. 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

29. 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

28. **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

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

26. 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

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

24. **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

23. **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

22. **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

21. **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

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

19. 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

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**[‡], 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-2022C1-26326          03/01/2023 - 02/07/2026

   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**

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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: **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

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| 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**

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|---|---|
| Spring 2022 | Instructor for PubH 7406 - Biostatistical Inference II |
| Spring 2021 | Instructor for PubH 7406 - Advanced Regression and Design |

**The Ohio State University**

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| 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**

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|---|---|
| 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

| | |
|---|---|
| 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

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|---|---|
| 2022 | Han Fu (Biostatistics, Ph.D., Ohio State University) |
| 2022 | Vanessa Griggs (Epidemiology, Ph.D., Ohio State University) |

## MS Mentees

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|---|---|
| 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 |

## Other

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

# Service

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| 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* | |

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| | *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– |
| | 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**

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|---|---|
| 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 |

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|---|---|
| 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 |

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| Apr 2016 | *Endovascular vs. Open Surgery: Analysis of Survival Outcomes Using Instrumental Variables*, Dartmouth, Department of Biomedical Data Science - Biostatistics Seminar |

## Contributed Talks

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|---|---|
| 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

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|---|---|
| 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

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| 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: April 7, 2023