Jared Huling

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Department of Statistics
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Education

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

Publications and Papers Under Review

Jared Huling, Menggang Yu, and A. James O'Malley. Instrumental variable based estimation under the semiparametric accelerated failure time model. Submitted

Jared Huling, Menggang Yu, Muxuan Liang, and Maureen Smith. Risk prediction for heterogeneous populations with application to hospital admission prediction. To appear in *Biometrics*

Jared Huling and Peter Z. G. Qian. Fast penalized regression and cross validation for tall data with the oem package. To appear in the *Journal of Statistical Software*

Xiao Nie, **Jared Huling**, and Peter Z. G. Qian. Accelerating large-scale statistical computation with the GOEM algorithm. To appear in *Technometrics*

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

Manuscripts in Preparation

Jared Huling, Menggang Yu, and Maureen Smith. Heterogeneity of intervention effects and subgroup identification based on longitudinal outcomes. In preparation

Jared Huling and Menggang Yu. Semiparametric estimation of central subspaces with hierarchical nesting structures. In preparation

Jared Huling and Peter Z. G. Qian. Deep neural networks for flexible emulation of computer experiments. In preparation

Jared Huling and Peter Z. G. Qian. Stabilizing gradient enhanced kriging with sparsity constraints. In preparation

Selected Awards and Honors

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

Student Travel Award International Conference on Health Policy Statistics 2015

Research & Professional Experience

N.I.H. Predoctoral Fellow Trainee in Biostatistics   August 2012 - July 2015

Performed four rotations from Fall 2012 to Spring 2014.

- Spring 2014: Collaborated with Prof. Sijian Wang in the development of outcome weighted learning techniques for multiple treatments for subgroup identification.

- Fall 2013: Collaborated with Prof. Menggang Yu in the development and implementation of instrumental variable estimation techniques in survival analysis for the comparison of surgical repair procedures for abdominal aortic aneurysm.

- Spring 2013: Collaborated with Prof. Mark Craven on utilizing hidden Markov models for the identification and characterization of surgical skill using video data.

- Fall 2012: Collaborated with Prof. Michael Newton in developing a testing procedure to determine if a surrogate cell selection technique was able to preferentially select expanded clone T-cells.

Presentations - Invited

Apr 2017: *Heterogeneity of Intervention Effects and Subgroup Identification Based on Longitudinal Outcomes*, New England Statistics Symposium 2017

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

Presentations

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

Oct 2015: *Mortality Comparison of Endovascular versus Open Repair for Abdominal Aortic Aneurysm using Instrumental Variables*, Poster, International Conference on Health Policy Statistics

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.

Teaching and Mentoring Experience

Apr 2017: (With Menggang Yu) taught short course *Subgroup Analysis and Treatment Scoring with Application in Precision Medicine*, New England Statistics Symposium 2017

Jun-Aug 2015: Mentored a student in the Computational Biology and Biostatistics Summer Research Program

Jul-Aug 2013, 2014, 2015: Teaching Assistant for the Summer Institute in Biostatistics program

Computing

Software

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

- *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 casualinference.org/oem/.

- *vennLasso* – An `R` package for variable selection for heterogeneous populations. Available at cran.r-project.org/package=vennLasso. Documentation available at casualinference.org/vennLasso/.

- *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 casualinference.org/personalized/.

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

Last updated: August 10, 2017