Jessica N. Minnier

Assistant Professor of Biostatistics, Oregon Health & Science University
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Employment

Assistant Professor of Biostatistics, Oregon Health & Science University 2013-present

Assistant Professor, OHSU-PSU School of Public Health
Biostatistician, Knight Cancer Institute Biostatistics Shared Resource
Biostatistician, Knight Cardiovascular Institute
Statistical Advisor to the Integrated Genomics Lab

Post-doctoral research fellow, Fred Hutchinson Cancer Research Center 2012-2013

Education

Harvard University, Ph.D. Biostatistics 2012

Harvard University, A.M. Biostatistics 2009

Lewis & Clark College, B.A. Mathematics, minor in Computer Science, *magna cum laude* 2007

Teaching

Online Materials

2017 R Bootcamp Chapter 5: "Simple Stats and Modeling with broom", with Ted Laderas, PhD DataCamp, github

2017 Data Exploration & Statistics, with Ted Laderas, PhD, *Oregon Data Science Institute* learnR, github

R Related Workshops

2018 Common Mistakes in Statistics OHSU BioData Club

2017 R Bootcamp (series co-taught with Ted Laderas, PhD) OHSU BioData Club

University Courses, Graduate Level

Mathematical Statistics II, BSTA 552, OHSU-PSU School of Public Health 2016-2018

Reading & Research in Biostatistics, BSTA 500, OHSU-PSU School of Public Health 2018

Hands-On Intro RNAseq, CANB 610NN, OHSU School of Medicine, co-taught with Bioinformatics and CDCB faculty 2017

Problem Solving in Advanced Statistics, Co-lecturer, Phd in Biostatistics Program, Harvard Biostatistics, HSPH 2012

Teaching Assistant

Harvard School of Public Health (2008-2011):

Basics of Statistical Inference
Intro. Statistics for Medical Research II
Applied Longitudinal Data Analysis
Principles of Clinical Trials
Advanced Population and Medical Genetics (Epidemiology PhD program course, homeworks in Perl or Python)

Lewis & Clark College (2004-2007):

Math 055: Review of Algebra

Select Invited Presentations

R Related

2018 Shiny Apps in Genomics and Clinical Trials. R in Pharma. Cambridge, MA.

2018 Building Shiny Apps: Challenges and Responsibilities. Data Day Texas. Austin, TX.

2017 R and Machine Learning: Automated Feature Selection of Predictors in Electronic Medical Records. Portland Women Who Code Group.

2016 The START App: Shiny Transcriptome Analysis Resource Tool. Portland R User Group.

2016 Reproducible Research in Statistics. Cancer Research & Biostatistics and OHSU Knight Cancer Biostatistics Shared Resource Summer Retreat, Cancer Research & Biostatistics. Seattle, WA.

Statistics Related

2018 Integrative Analysis of Metabolomics and Lipidomics with Application to Microvascular Dysfunction. The Western North American Region of the International Biometric Society 2018 Annual Meeting. Edmonton, Alberta, Canada.

2017 Automated Feature Selection for Predictors in Electronic Medical Records. Lifetime Data Analysis Conference. Storrs, CT. May 27, 2017.

2014 Post PhD: What to Expect in Your First Year? Women in Statistics Conference. Research Triangle, NC. May 16, 2014.

2014 Genome-wide risk modeling with machine learning methods. GECCO Investigator Meetings, Fred Hutchinson Cancer Research Center. Seattle, WA.

Select Contributed Presentations

2018 **Minnier J**, Laderas T. Mixing Active Learning and Lecturing: Using Interactive Visualization as a Teaching Tool. Joint Statistical Meetings. Vancouver, BC, Canada.

2018 **Minnier J**. Building Shiny Apps: With Great Power Comes Great Responsibility. Conference in Statistical Practice. Portland, OR.

Community

Co-Organizer Cascadia R Conference 2017, 2018 2017-present

Co-Organizer Cascadia OpenCon Conference 2019 2018-present

R package reviewer ROpenSci 2018

Faculty Advisor Portland American Statistical Association (PASA) Student Chapter 2017-present

Oregon Chapter Representative, American Statistical Association 2016-present

Regional Advisory Board Member, WNAR of the International Biometrics Society 2018-present

Member, Data Safety and Monitoring Committee, Knight Cancer Institute, OHSU 2018-present

Member, Clinical Research Review Committee, Knight Cancer Institute, OHSU 2013-2016

Special Awards Judge, Intel Northwest Science Expo for High School Students 2016

R Community Involvement

Member and speaker:

OHSU BioData Club
OHSU Data Jamboree
Portland R User Group
Portland RLadies
Portland Women Who Code Group

Honors

2018 NASA Datanaut, NASA

2018 Diversity Travel Scholarship to attend Rstudio::conf, Rstudio, Inc.

2017 International Mathematical Society New Researcher's Conference Invitee and Travel Award

2012 Finalist Best Statistics Student Paper Award, American Public Health Association

2011 David P. Byar Young Investigator Award for the Joint Statistical Meetings, American Statistical Association Biometrics Section

2011 Rose Traveling Fellowship in Chronic Disease Epidemiology & Biostatistics, Harvard School of Public Health

2011 Distinguished Student Paper Award, ENAR International Biometrics Society

2007 Phi Beta Kappa, Lewis & Clark College

2006 Barry M. Goldwater Scholar

2003-2007 Trustee Merit Scholarship, Lewis & Clark College

Research

My research interests focus on the analysis of high dimensional data including genomic data and electronic health record data, risk prediction models to improve disease screening and prevention, and statistical methodology with applications in cardiovascular health and oncology.

Select Publications

google scholar | orcid 0000-0002-3527-2757

Peer-reviewed

Nelson, J. W., Sklenar, J., Barnes, A. P., & **Minnier, J**. (2017). The START App: a web-based RNAseq analysis and visualization resource. Bioinformatics, 33(3), 447-449.

Vasilevsky, N. A., **Minnier, J.**, Haendel, M. A., & Champieux, R. E. (2017). Reproducible and reusable research: are journal data sharing policies meeting the mark?. PeerJ, 5, e3208.

Minnier, J., Yuan, M., Liu, J. S., & Cai, T. (2015). Risk classification with an adaptive naive bayes kernel machine model. Journal of the American Statistical Association, 110(509), 393-404.

Minnier, J., Tian, L., & Cai, T. (2011). A perturbation method for inference on regularized regression estimates. Journal of the American Statistical Association, 106(496), 1371-1382.

Book Chapter

Minnier, J., Pennock, N. D., Guo, Q., Schedin, P., & Harrington, C. A. (2018). RNA-Seq and Expression Arrays: Selection Guidelines for Genome-Wide Expression Profiling. In Gene Expression Analysis (pp. 7-33). Humana Press, New York, NY.

Other

Minnier, J. (2012), Inference and Prediction for High Dimensional Data via Penalized Regression and Kernel Machine Methods, Ph.D. Dissertation, Harvard University. http://nrs.harvard.edu/urn-3:HUL.InstRepos:9367010