
Education

PhD in Biostatistics

May 2018

Johns Hopkins Bloomberg School of Public Health

Dissertation: Evidence-Based Methods in Studies of Biology and Data Analysis

Advisor: Kasper Daniel Hansen

BS in Biomedical Engineering

May 2013

Johns Hopkins University

Secondary major: Applied Mathematics and Statistics

Minor: Computer Science

Work Experience

Associate Professor

2023 - present

Assistant Professor

2018 - 2023

Department of Mathematics, Statistics, and Computer Science

Macalester College, Saint Paul, MN

Johns Hopkins Biostatistics Center

July 2016 - August 2017

Student statistical consultant

Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

Advisor: Carol Thompson, MS

Siemens Competition

2016 - 2017

Stage I, II, and finalist judge

Categories: Computer Science, Mathematics, Bioinformatics, Cell/Cancer

Biology, and Genetics

Published

10. **Myint, L.** 2023. Controlling time-varying confounding in difference-in-differences studies using the time-varying treatments framework. Health Services & Outcomes Research Methodology. <https://doi.org/10.1007/s10742-023-00305-2>
9. Wulczyn, K., Rhee, E., **Myint, L.**, Kalim, S., & Shafi, T. 2022. Incidence and Risk Factors for Pruritus in Patients with Nondialysis CKD. Clinical Journal of the American Society of Nephrology: CJASN. <https://doi.org/10.2215/CJN.09480822>
8. Hu J-R, **Myint L***, Levey AS, Coresh J, Inker LA, Grams ME, Guallar E, Hansen KD, Rhee EP, Shafi T. 2021. A metabolomics approach identified toxins associated with uremic symptoms in advanced chronic kidney disease. Kidney international. DOI: 10.1016/j.kint.2021.10.035.
* Indicates co-first authorship
7. **Myint L**, Hadavand A, Jager L, Leek J. 2019. Comparison of Beginning R Students' Perceptions of Peer-Made Plots Created in Two Plotting Systems: A Randomized Experiment. Journal of Statistics Education 28:98–108. DOI: 10.1080/10691898.2019.1695554.
6. **Myint L**, Wang R, Boukas L, Hansen KD, Goff LA, Avramopoulos D. 2019. A screen of 1,049 schizophrenia and 30 Alzheimer's-associated variants for regulatory potential. American Journal of Medical Genetics Part B: Neuropsychiatric Genetics 183:61–73. DOI: 10.1002/ajmg.b.32761.
5. **Myint L**, Avramopoulos DG, Goff LA, Hansen KD. 2019. Linear models enable powerful differential activity analysis in massively parallel reporter assays. BMC Genomics 20:209. DOI: 10.1186/s12864-019-5556-x.
4. **Myint L**, Leek JT, Jager LR. 2018. Explanation of observational data engenders a causal belief about smoking and cancer. PeerJ 6:e5597. DOI: 10.7717/peerj.5597.
 - **Press:** Preprint was featured in the [February 2018 issue](#) of Significance Magazine.
3. Monroe AK, **Myint L**, M Rutstein R, Aberg J, L Boswell S, L Agwu A, A Gebo K, D Moore R, HIV Research Network. 2018. Factors Associated With Gaps in Medicaid Enrollment Among People With HIV and the Effect of Gaps on Viral Suppression. Journal of Acquired Immune Deficiency Syndromes 78:413–420. DOI: 10.1097/QAI.0000000000001702.
2. Kang JY, Rabiei AH, **Myint L**, Nei M. 2017. Equivocal significance of post-ictal generalized EEG suppression as a marker of SUDEP risk. Seizure: The Journal of the British Epilepsy Association 48:28–32. DOI: 10.1016/j.seizure.2017.03.017.
1. **Myint L**, Kleensang A, Zhao L, Hartung T, Hansen KD. 2017. Joint Bounding of Peaks Across Samples Improves Differential Analysis in Mass Spectrometry-Based Metabolomics. Analytical Chemistry 89:3517–3523. DOI: 10.1021/acs.analchem.6b04719.

Submitted

1. Al Awadhi S, **Myint L***, Guallar E, Clish C, Wulczyn K, Kalim S, Thadhani R, Segev D, McAdams DeMarco M, Moe S, Moorthi R, Hostetter T, Himmelfarb J, Meyer T, Powe N, Tonelli M, Rhee E, Shafi T. A Metabolomics Approach to Identify Metabolites Associated with

In Preparation

1. **Myint, L.**, Guallar E, Rhee EP, Shafi T. Metabolomics of Uremic Symptoms in Hemodialysis Patients

Non-Reviewed Scholarship

- Heggseth B, **Myint L**, Grinde K. (2018) "STAT 155 Notes" Course text for Introduction to Statistical Modeling. Published at <https://bcheggeseth.github.io/Stat155Notes>
 - Grinde K, Theobald A, **Myint L**. [Beyond Achievement: Access, Identity, and Power in Alternative Grading](#). Guest post for the [Grading for Growth blog](#).
 - **Press:** On May 27, 2024, this post was [featured](#) as the 4th most opened post of all time.
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Software

yamss: Tools for the analysis of high-throughput metabolomics data. An R package released through the Bioconductor project.

<https://www.bioconductor.org/packages/yamss>

mpira: Tools for the analysis of data from massively parallel reporter assays. An R package released through the Bioconductor project.

<https://www.bioconductor.org/packages/mpira>

rsemmed: A programmatic interface to the Semantic MEDLINE database. A tool for computational literature discovery.

<https://www.bioconductor.org/packages/rsemmed>

Grant Participation

Metabolomics of Uremic Symptoms in Dialysis Patients

NIH R01 subaward contract

Dates: June 2019 - present

Role: statistical analyst

Presentations

Adventure in Alternative Grading

Spring Professional Activities Workshop. Macalester College. ([slides](#))
May 2024

Access as the intersection of resources and practices

Joint Statistical Meetings. [Invited session](#). ([slides](#))
August 2023

Controlling time-varying confounding in difference-in-differences studies using the time-varying treatments framework

American Causal Inference Conference ([poster](#))
May 2023

Alternative grading for "rigor" and beauty

Macalester College - Center for Scholarship and Teaching seminar ([slides](#))
April 2023

Causal inference throughout the statistics curriculum

Joint Statistical Meetings. [Invited session](#). ([slides](#))
August 2022

A metabolic view of symptoms in kidney disease

University of St. Thomas - Department of Applied Probability and Statistics seminar ([slides](#))
April 2022

Exploring biomedical concept graphs with rsemmed

Bioconductor Conference 2021 ([poster](#))
August 2021

What Did I Just Read? Organizing Knowledge From the Research Literature Using Graph Databases

Minnesota Women in Analytics and Data Science conference ([slides](#))
October 2020

Graphs Galore! Representing Knowledge in the Sciences and Humanities

Carleton College - Department of Statistics seminar ([slides](#))
October 2019
Macalester College - Center for Scholarship and Teaching seminar ([slides](#))
November 2019

Statistical methods for querying the regulatory role of DNA

Creighton University Math Colloquium ([slides](#))
March 2019

Magical Web Scraping with rvest

Baltimore R Ladies Group ([slides](#))

May 2018

Joint Preprocessing of Samples Improves Power in Differential Analysis for Mass Spectrometry-Based Metabolomics

Johns Hopkins University - Department of Biophysics seminar

December 2017

Shiny Applications for Teaching and Dungeons and Dragons

Baltimore UseR Group ([slides](#))

September 2017

A Method for Joint Processing of Mass Spectrometry-Based Metabolomics Data for Improved Differential Analysis

Poster: ENAR, Washington D.C.

March 2017

Teaching

Macalester College

Instructor

- STAT 125: Epidemiology (F19, S24)
- STAT 155: Introduction to Statistical Modeling (F18, S20, F20)
- STAT 212: Intermediate Data Science (F23, S24)
- STAT 253: Statistical Machine Learning (S19, S21, S23)
- STAT 451: Causal Inference (F20, S23) (Formerly STAT 394 (S20))

Cloud-Based Data Science Specialization

Content developer

A massive open online course on the Leanpub platform for providing a highly accessible data science education. Content developer for the following courses:

- [Organizing Data Science Projects](#)
- [Version Control](#)
- [Introduction to R](#)
- [Data Tidying](#)

Johns Hopkins Bloomberg School of Public Health

Instructor

- Statistical Thinking for Informed Decision Making (2 semesters)
I developed this course as part of the [Gordis Teaching Fellowship](#), a school-wide award that provides funds to design and teach an undergraduate class. A news article-motivated introduction to major biostatistical areas, including causal inference, survey sampling, and survival analysis.

Teaching Assistant

- Public Health Biostatistics (3 semesters)
- Introduction to R for Public Health Researchers (1 course)
- Statistical Methods in Public Health (3 quarters)
- Data Analysis Workshop (2 courses)
- Statistics for Genomics (1 quarter)
- Statistics for Laboratory Scientists (2 quarters)
- Summer Institute: Statistical Reasoning in Public Health (2 courses)

Tutor

- Statistical Methods in Public Health (2 quarters)
- Mentor for Center for Talented Youth Cogito Research Award Recipient (3 months)

Johns Hopkins University

Teaching Assistant

- Introduction to Java (1 semester)

Awards

Helen Abbey Award

Johns Hopkins Bloomberg School of Public Health
Excellence in teaching ([website](#))

May 2017

Memberships

- American Statistical Association
- Society for Causal Inference

Conferences

- 2020: Organizer and Chair for an invited session for the [Education Track](#) at the Symposium on Data Science and Statistics

Reviewer

- 2023: Health Services and Outcomes Research Methodology
- 2023: Journal of Statistics and Data Science Education
- 2022: Causal Learning and Reasoning (CLear 2023) conference
- 2022: Clinical Journal of the American Society of Nephrology
- 2021: PeerJ
- 2020: [Open Case Studies](#)
- 2020: Journal of Statistics Education
- 2019: Nature Human Behaviour
- 2019: Technology Innovations in Statistics Education
- 2019: Journal of Statistics Education
- 2018: [BiOverlay](#)
- 2018: American Journal of Epidemiology
- 2017: Observational Studies

Institutional Service

Department Service

- MSCS Honors Seminar Organizing Committee (2023-4)
- Mathematics Tenure-Track Position Hiring Committee (2023)
- DataFest Organizer (2023)
- Student Community Committee (2023)
- Revision of Department Majors (2021)
- Statistics Tenure-Track Position Hiring Committee (2019, 2022)
- Statistics Allocation Request (2019, 2022)
- Statistics Visitor Hiring Committee (2020, 2023)
- Statistics Postdoc Hiring Committee (2018, 2020)

Undergraduate Research Advising

Honors Advisor

- Wenxuan Zhu (2023-2024)
- Ben Christensen (2023-2024)
- Charlotte Giang (2020-2021)
- Fiona Adams (2019-2020)

Honors Reader

- Paige Tomer (2024)
- Sarah Tannert-Lerner (2023)
- Connie Zhang (2023)
- Zuofu Huang (2021)
- Liam Purkey (2021)
- Coco Li (2021)
- Aidan Toner-Rodgers (2021)
- Millie Baker (2020)
- Kieu-Giang Nguyen (2020)
- Katie Jolly (2019)

Student Research Supervisor

- Josh Rollin (Summer 2023)
- Ben Christensen (Summer 2023)
- Nicholas Di (Summer 2019)

Internship Supervisor

- Juliet Cramer (Spring 2024)
- Ronan Manning (Spring 2024)

College Service

- Community and Global Health Concentration Co-Director (2023-present)
- Strategic Planning Implementation: First-Year Experience Committee (2023-2024)
- Strategic Planning Implementation: Student-Ready Campus Committee (2023)
- COVID Testing Committee (2020-2021)
- Community and Global Health Concentration Steering Committee (2020-present)