Leslie Myint

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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

Assistant Professor August 2018 - present
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

Publications

Published

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. **Myint L**. Controlling time-varying confounding in difference-in-differences studies using the time-varying treatments framework. *Under review at Health Services and Outcomes Research Methodology*

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

mpra: Tools for the analysis of data from massively parallel reporter assays. An R package released through the Bioconductor project.
https://www.bioconductor.org/packages/mpra

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: 6/1/2019 - present
Role: statistical analyst

Presentations

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)
- STAT 155: Introduction to Statistical Modeling (F18, S20, F20)
- 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 May 2017
Johns Hopkins Bloomberg School of Public Health
Excellence in teaching (website)

Professional Service

Memberships

- American Statistical Association

Conferences

- 2020: Organizer and Chair for an invited session for the Education Track at the Symposium on Data Science and Statistics

Reviewer

- 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