

CURRICULUM VITAE  
The Johns Hopkins University School of Medicine

(Signature) \_\_\_\_\_  
(Typed Name) Yuxin (Daisy) Zhu, PhD

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(Date of this version)

## DEMOGRAPHIC AND PERSONAL INFORMATION

### Current Appointments

2021-present Assistant Professor, Johns Hopkins Armstrong Institute for Patient Safety and Quality, Baltimore, MD  
2021-present Assistant Professor, Department of Neurology, Johns Hopkins School of Medicine, Baltimore, MD  
2022-present Assistant Professor (joint), Department of Biostatistics, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

### Personal Data

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Baltimore, Maryland, 21202  
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### Education and Training

Undergraduate  
2009-2013 B.S., Mathematics, Nanjing University, Nanjing, Jiangsu, China  
Doctoral/graduate  
2013-2018 Ph.D., Biostatistics, Johns Hopkins University, Baltimore, MD  
Postdoctoral  
2018-2021 Postdoctoral fellow, Department of Biostatistics, Johns Hopkins Bloomberg School of Public Health, and Division of Biostatistics and Bioinformatics, Department of Oncology, Johns Hopkins School of Medicine.

**Professional Experience** NONE

## PUBLICATIONS

**Original Research [OR].** (\* for corresponding and/or senior authorship, underline for mentee, † for co-first authorship.)

### Statistical methodology

1. Deng D, Du Y, Ji Z, Rao K, Wu Z, **Zhu Y**, and Coley RY. Predicting survival time for metastatic castration resistant prostate cancer: An iterative imputation approach. *F1000Research*. 2016; 5; (alphabetically ordered authorship except for the last author.) <https://doi.org/10.12688/f1000research.8628.1>
2. Wang Z, Tang Z, **Zhu Y**, Pettigrew C, Soldan A, Gross A, and Albert M. AD risk score for the early phases of disease based on unsupervised machine learning. *Alzheimer's & Dementia*. 2020; 16(11), 1524-1533; contributor in methodology. <https://doi.org/10.1002/alz.12140>
3. **Zhu Y**, Wang Z, Liberman AL, Chang TP, Newman-Toker D. Statistical insights for crude-rate-based operational measures of misdiagnosis-related harms. *Statistics in Medicine*. 2021 Sep 10;40(20):4430-41. <https://doi.org/10.1002/sim.9039>
4. **Zhu Y\***, Wang MC. Obtaining optimal cutoff values for tree classifiers using multiple biomarkers. *Biometrics*. 2022 Mar;78(1):128-40. <https://doi.org/10.1111/biom.13409>
5. Wang MC, **Zhu Y**. Bias correction via outcome reassignment for cross-sectional data with binary disease outcome. *Lifetime Data Analysis*. 2022 Jun 24:1-6. <https://doi-org.proxy1.library.jhu.edu/10.1007/s10985-022-09559-3>
6. **Zhu Y**, Wang Z, Newman-Toker DE. Misdiagnosis-Related Harm Quantification Through Mixture Models and Harm Measures. *Biometrics*. 2022 Oct 11. <https://doi-org.proxy1.library.jhu.edu/10.1111/biom.13759>

7. Tang Z, Zhu Y, Wang Z. Characterizing Alzheimer's Disease Biomarker Cascade Through Non-linear Mixed Effect Models. arXiv preprint arXiv:2304.09754. 2023 Apr 19.

#### Collaborative work

8. Pettigrew C, Soldan A, **Zhu Y**, Wang MC, Moghekar A, Brown T, Miller M, Albert M, and BIOCARD Research Team. Cortical thickness in relation to clinical symptom onset in preclinical AD. *NeuroImage: Clinical*. 2016; 12, 116-122. Role: primary statistician. <https://doi.org/10.1016/j.nicl.2016.06.010>
9. Guinney, Justin, et al. (Authorship as part of the Prostate Cancer Challenge DREAM Community) "Prediction of overall survival for patients with metastatic castration-resistant prostate cancer: development of a prognostic model through a crowdsourced challenge with open clinical trial data." *The Lancet Oncology* 18.1 (2017): 132-142. [https://doi-org.proxy1.library.jhu.edu/10.1016/S1470-2045\(16\)30560-5](https://doi-org.proxy1.library.jhu.edu/10.1016/S1470-2045(16)30560-5)
10. Pettigrew C, Soldan A, **Zhu Y**, Wang MC, Brown T, Miller M, Albert M, and BIOCARD Research Team. Cognitive reserve and cortical thickness in preclinical Alzheimer's disease. *Brain imaging and behavior*. 2017; 11(2), 357-367. Role: primary statistician. <https://doi.org/10.1007/s11682-016-9581-y>
11. Albert M, **Zhu Y**, Moghekar A, Mori S, Miller MI, Soldan A, Pettigrew C, Selnes O, Li S, and Wang MC. Predicting progression from normal cognition to mild cognitive impairment for individuals at 5 years. *Brain*. 2018; 141(3), 877-887. Role: primary statistician. <https://doi.org/10.1093/brain/awx365>
12. Newman-Toker DE, Schaffer AC, Yu-Moe CW, Nassery N, Tehrani ASS, Clemens GD, Wang Z, **Zhu Y**, Fanai M, and Siegal D. Serious misdiagnosis-related harms in malpractice claims: the "Big Three"—vascular events, infections, and cancers. *Diagnosis*. 2019; 6(3), 227-240. Role: secondary statistician. <https://doi.org/10.1515/dx-2019-0019>
13. Pettigrew C, Shao Y, **Zhu Y**, Grega M, Brichko R, Wang MC, Carlson MC, Albert M, and Soldan A. Self-reported lifestyle activities in relation to longitudinal cognitive trajectories. *Alzheimer Disease & Associated Disorders*. 2019; 33(1), 21-28. Role: primary statistician. <https://doi.org/10.1097/WAD.0000000000000281>
14. Soldan A, Pettigrew C, **Zhu Y**, Wang MC, Gottesman RF, DeCarli C, Albert M, and BIOCARD Research Team. Cognitive reserve and midlife vascular risk: Cognitive and clinical outcomes. *Annals of clinical and translational neurology*. 2020; 7(8), 1307-1317. Role: primary statistician. <https://doi.org/10.1002/acn3.51120>
15. Pettigrew C, Soldan A, **Zhu Y**, Cai Q, Wang MC, Moghekar A, Miller MI, Singh B, Martinez O, Fletcher E, and DeCarli C. Cognitive reserve and rate of change in Alzheimer's and cerebrovascular disease biomarkers among cognitively normal individuals. *Neurobiology of aging*. 2020; 88, 33-41. Role: primary statistician. <https://doi.org/10.1016/j.neurobiolaging.2019.12.003>
16. Soldan A, Pettigrew C, **Zhu Y**, Wang MC, Moghekar A, Gottesman RF, Martinez O, Fletcher E, DeCarli C, and Albert M. White matter hyperintensities and CSF Alzheimer disease biomarkers in preclinical Alzheimer disease. *Neurology*. 2020; 94(9), e950-e960. Role: primary statistician. <https://doi.org/10.1212/WNL.00000000000008864>
17. Newman-Toker DE, Wang Z, **Zhu Y**, Nassery N, Tehrani ASS., Schaffer AC, Yu-Moe CW, Clemens GD, Fanai M, and Siegal D. Rate of diagnostic errors and serious misdiagnosis-related harms for major vascular events, infections, and cancers: toward a national incidence estimate using the "Big Three". *Diagnosis* 8.1 (2021): 67-84. Role: secondary statistician. <https://doi.org/10.1515/dx-2019-0104>
18. Newman-Toker DE, Schaffer AC, Yu-Moe CW, Nassery N, Tehrani ASS, Clemens GD, Wang Z, **Zhu Y**, Fanai M and Siegal D. Corrigendum to: Serious misdiagnosis-related harms in malpractice claims: The "Big Three"—vascular events, infections, and cancers. *Diagnosis*. 2021; 8(1), pp.127-128. Role: secondary statistician. <https://doi.org/10.1515/dx-2020-0034>
19. Chen L, Soldan A, Oishi K, Faria A, **Zhu Y**, Albert M, van Zijl PC, and Li X. Quantitative susceptibility mapping of brain iron and  $\beta$ -amyloid in MRI and PET relating to cognitive performance in cognitively normal older adults. *Radiology*. 2021; 298, no. 2: 353-362. Role: contributing statistician. <https://doi.org/10.1148/radiol.2020201603>
20. Sharp AL, Baecker A, Nassery N, Park S, Hassoon A, Lee MS, Peterson S, Pitts S, Wang Z, **Zhu Y**, and Newman-Toker DE. Missed acute myocardial infarction in the emergency department—standardizing measurement of misdiagnosis-related harms using the SPADE method. *Diagnosis*. 2021; 8(2), pp.177-186. Role: secondary statistician. <https://doi.org/10.1515/dx-2020-0049>

21. Soldan A, Pettigrew C, **Zhu Y**, Wang MC, Bilgel M, Hou X, Lu H, Miller MI, Albert M and BIOCARD Research Team. Association of Lifestyle Activities with Functional Brain Connectivity and Relationship to Cognitive Decline among Older Adults. *Cerebral Cortex*. 2021. Role: primary statistician. <https://doi.org/10.1093/cercor/bhab187>
22. Liberman AL, Hassoon A, Fanai M, Badihan S, Rupani H, Peterson SM, Sebestyen K, Wang Z, **Zhu Y**, Lipton RB, Newman-Toker DE. Cerebrovascular Disease Hospitalizations following Emergency Department Headache Visits: A Nested Case-Control Study. *Academic Emergency Medicine*. 2021 Jul 26; Role: contributing statistician. <https://doi.org/10.1111/acem.14353>
23. Pettigrew C, Soldan A, Brichko R, **Zhu Y**, Wang MC, Kutten K, Bilgel M, Mori S, Miller MI, Albert M. Computerized paired associate learning performance and imaging biomarkers in older adults without dementia. *Brain imaging and behavior*. 2021 Oct 23;1-9. Role: primary statistician. <https://doi.org/10.1007/s11682-021-00583-9>
24. Pettigrew C, Soldan A, Alm KH, Bakker A, **Zhu Y**, Wang MC, Kutten K, Bilgel M, Miller MI, Faria A, Mori S. White matter tract integrity, but not amyloid burden, is related to cognition in cognitively normal older adults. *Alzheimer's & Dementia*. 2021 Dec;17:e055675. Role: primary Statistician. <https://doi.org/10.1002/alz.055675>
25. Sharp AL, Pallegadda R, Baecker A, Park S, Nassery N, Hassoon A, Peterson S, Pitts SI, Wang Z, **Zhu Y**, Newman-Toker DE. Are Mental Health and Substance Use Disorders Risk Factors for Missed Acute Myocardial Infarction Diagnoses Among Chest Pain or Dyspnea Encounters in the Emergency Department?. *Annals of Emergency Medicine*. 2022 Feb 1;79(2):93-101. Role: contributing statistician. <https://doi.org/10.1016/j.annemergmed.2021.08.016>
26. Chan CK, Pettigrew C, Soldan A, **Zhu Y**, Wang MC, Albert M, Rosenberg PB, BIOCARD Research Team. Association Between Late-Life Neuropsychiatric Symptoms and Cognitive Decline in Relation to White Matter Hyperintensities and Amyloid Burden. *Journal of Alzheimer's Disease*. 2022 Feb 21(Preprint):1-2. Role: primary statistician. <https://doi.org/10.3233/JAD-215267>
27. Lin Z, Lim C, Jiang D, Soldan A, Pettigrew C, Oishi K, **Zhu Y**, Moghekar A, Liu P, Albert M, Lu H. Longitudinal changes in brain oxygen extraction fraction (OEF) in older adults: Relationship to markers of vascular and Alzheimer's pathology. *Alzheimer's & Dementia*. 2023 Feb;19(2):569-77. Role: primary statistician. <https://doi.org/10.1002/alz.12727>
28. Liberman AL, Wang Z, **Zhu Y**, Hassoon A, Choi J, Austin JM, Johansen MC, Newman-Toker DE. Optimizing measurement of misdiagnosis-related harms using symptom-disease pair analysis of diagnostic error (SPADE): comparison groups to maximize SPADE validity. *Diagnosis*. 2023 Apr 5(0). Role: contributing statistician. <https://doi.org/10.1515/dx-2022-0130>
29. Soldan A, Oh S, Ryu T, Pettigrew C, **Zhu Y**, Moghekar A, Xiao MF, Pontone GM, Albert M, Na CH, Worley P. NPTX2 in cerebrospinal fluid predicts the progression from normal cognition to mild cognitive impairment. *Annals of neurology*. 2023 Oct;94(4):620-31. Role: primary statistician. <https://doi.org/10.1002/ana.26725>
30. Rani N, Alm KH, Speck CL, Soldan A, Pettigrew C, **Zhu Y**, Albert MS, Bakker A. Tau PET accumulation in Brodmann areas 35 and 36 is associated with individual differences in cognition in non-demented older adults. *Alzheimer's & Dementia*. 2023 Dec;19:e083095. Role: primary statistician. <https://doi.org/10.1002/alz.083095>
31. Alm KH, **Zhu Y**, Soldan A, Pettigrew C, Faria A, Hou X, Lu H, Mori S, Albert MS, Bakker A. Rates of change in structural and functional brain connectivity are associated with longitudinal changes in episodic memory in non-demented older adults. *Alzheimer's & Dementia*. 2023 Dec;19:e079875. Role: primary statistician. <https://doi.org/10.1002/alz.079875>
32. Pettigrew C, Na CH, Oh S, Soldan A, **Zhu Y**, Moghekar A, Albert MS, Worley PF. Synaptic Marker NPTX2 Predicts Risk of MCI Clinical Symptom Onset. *Alzheimer's & Dementia*. 2023 Dec;19:e079748. Role: primary Statistician. <https://doi.org/10.1002/alz.079748>
33. Rani N, Alm KH, Corona-Long CA, Speck CL, Soldan A, Pettigrew C, **Zhu Y**, Albert M, Bakker A. Tau PET burden in Brodmann areas 35 and 36 is associated with individual differences in cognition in non-

demented older adults. *Frontiers in Aging Neuroscience*. 2023 Dec 14;15:1272946. Role: contributing statistician. <https://doi.org/10.3389/fnagi.2023.1272946>

34. Bastani PB, Rieiro H, Badihian S, Otero-Millan J, Farrell N, Parker M, Newman-Toker D, **Zhu Y**, Saber Tehrani A. Quantifying induced nystagmus using a smartphone eye tracking application (EyePhone). *Journal of the American Heart Association*. 2024 Jan 16;13(2):e030927. Role: contributing statistician. <https://doi.org/10.1161/JAHA.123.030927>

35. Newman-Toker DE, Nassery N, Schaffer AC, Yu-Moe CW, Clemens GD, Wang Z, **Zhu Y**, Tehrani AS, Fanai M, Hassoon A, Siegal D. Burden of serious harms from diagnostic error in the USA. *BMJ Quality & Safety*. 2024 Feb 1;33(2):109-20. Role: secondary statistician. <https://doi.org/10.1136/bmjqs-2021-014130>

Review Articles [RA] NONE

Case Reports [CR] NONE

### Book Chapters, Monographs [BC]

1. Scharfstein D, **Zhu Y**, and Tsiatis A. Handbook of Statistical Methods for Randomized Controlled Trials. (1<sup>st</sup> Edition.) Part II.4. Time to event subject to censoring: logrank test, Kaplan-Meier estimation and Cox proportional hazards regression models. CRC press. 2021.

Books, Textbooks [BK] NONE

Editorials [ED] NONE

Guidelines/Protocols, Consensus Statement, Expert Opinion, Consortium Articles  
NONE

[GL] Letters, Correspondence [LT] NONE

## FUNDING

### EXTRAMURAL Funding

Current

07/01/2024-06/30/2026	Time-Dynamic Tree-Based Methods for Personalized Alzheimer's Disease Prediction R03AG083470 NIH/NIA \$327,5000 (total funding) PI: Yuxin Zhu 24%
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09/01/2019-05/31/2025	Biomarkers of Cognitive Decline Among Normal Individuals: The BIOCARD Cohort U19 AG033655 NIH/NIA \$21,497,064 PI: Marilyn Albert 35%
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Past

09/15/2020 – 05/31/2024	Statistical Models of Alzheimer's Disease Pathological Cascade 5R01AG068002 NIH/NIA \$1,637,500 PI: Zheyu Wang
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	20%
06/01/2020 – 05/31/2024	Towards a National Diagnostic Excellence Dashboard—Partnering with Stakeholders to Construct Evidence-Based Operational Measures of Misdiagnosis-Related Harms R01 HS027614 AHRQ \$1,529,695 PI: David Newman-Toker 20%
09/20/2021 – 03/19/2023	Natus Algorithm-Fox Squirrel N/A Natus Medical Incorporated \$2,521,365 PI: David Newman-Toker 10%
01/01/2023 – 06/31/2023	Maternal, Infant & Early Childhood Home Visiting Program 23VMZP State of New Jersey \$522,110 PI: Cynthia Minkovitz 5%
05/15/2018-04/30/2021	National diagnostic performance dashboard to measure and track diagnostic error using big data #5756 Gordon and Betty Moore Foundation \$2,355,438 PI: David Newman-Toker Statistician, 50%.
07/01/2009-03/31/2019	Biomarkers of Cognitive Decline among Normal Individuals: the BIOCARD Cohort U19 AG033655 NIH/NIA PI: Marilyn Albert ~\$3,000,000 yearly Statistician, 100% from 09/2014 to 06/2018, 50% from 06/2018 to 03/2019.

**INTRAMURAL Funding** NONE

**CLINICAL ACTIVITIES**  
NONE

## EDUCATIONAL ACTIVITIES

### Educational Focus

I have experience teaching in statistical curriculum courses, special topics, and statistical courses for non-statistics students at undergraduate and graduate levels. I teach to help students succeed and inspire interest in meaningful research and application.

**Teaching and Facilitating Learning** (Role, learner level, course title, venue; any explanatory notes)

## Classroom instruction

2021, 2023	Guest lecturer, graduate-level, “140.860.01 Current Topics in Biostatistics Research”, Johns Hopkins Bloomberg School of Public Health, Department of Biostatistics. Details: (2021) 29 students, “Optimal Rule for Prefixed Tree Classifiers”; (2023) 26 students, “Statistical Methods for Alzheimer's Disease and AD-related biomarkers”.
2022 - 2024	Primary instructor, graduate-level, “140.607.79 Multilevel Models”, Johns Hopkins Bloomberg School of Public Health, Biostatistics and Epidemiology Summer Institute. Class size: 19 (2022), 17 (2023), 7 (2024). Recognized for <u>Excellence in Teaching</u> (2024).
2022 - 2024	Primary instructor, graduate-level, “140.641.01 Survival Analysis”, Johns Hopkins Bloomberg School of Public Health, Department of Biostatistics. Class size: 30 (2022), 24 (2023), 31 (2024). Recognized for <u>Excellence in Teaching</u> (2022, 2023).

## Clinical instruction

NONE

## CME instruction

NONE

## Workshop / seminars

2024 – Present	Co-leader of the SLAM working group (Survival, Longitudinal And Multivariate statistics working group), Department of Biostatistics, Johns Hopkins University. Website: SLAM Working Group - About SLAM ( <a href="https://google.com">google.com</a> )
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## Mentoring

### Pre-doctoral Advisees / Mentees

2022 October – 2024 May	Zhirui Fu, Department of Biostatistics (ScM thesis advisor; thesis work won <u>ISM 2024 Risk Analysis Student Paper Award</u> ; current position: PhD candidate, Department of Biostatistics, Emory University).
2024 January – 2024 August	Jingyi Hao, Department of Applied Mathematics and Statistics (MS; current position: PhD candidate, Department of Statistics, North Carolina State University).
2023 July -	Kexin Zhang, Department of Applied Mathematics and Statistics (MS).
2024 June -	Xiyao Zou, Department of Biostatistics (ScM thesis advisor).
2024 June -	Jiyue Zhang, Department of Applied Mathematics and Statistics (MS).

### Preliminary Schoolwide Oral Exam Committee (\*: alternate member)

2022	*Ruzhang Zhao, Department of Biostatistics (PhD), Johns Hopkins Bloomberg School of Public Health. Advisor: Dr. Hongkai Ji.
2022	*Wei Jin, Department of Applied Mathematics and Statistics (PhD), Johns Hopkins Whiting School of Engineering. Advisor: Dr. Yanxun Xu.
2022	*KunboWang, Department of Applied Mathematics and Statistics (PhD), Johns Hopkins Whiting School of Engineering. Advisor: Dr. Yanxun Xu.
2022	Dongliang Zhang, Department of Biostatistics (PhD), Johns Hopkins Bloomberg School of Public Health. Advisor: Dr. Martin Lindquist.
2024	Zhiyue Zhang, Department of Applied Mathematics and Statistics (PhD), Johns Hopkins Whiting School of Engineering. Advisor: Dr. Yanxun Xu.

### Thesis Committees (\*: alternate member)

2023	Chunnan Liu, Department of Biostatistics (ScM), Johns Hopkins Bloomberg School of Public Health. Thesis title: “The Association Between Binary Surrogate Endpoints and Time-to-Event Outcomes in Two-Arm Clinical Trials.” Role: thesis reader. Advisor: Dr. Chen Hu.
2024	Dongliang Zhang, Department of Biostatistics (PhD), Johns Hopkins Bloomberg School of Public Health. Thesis title: Role: voting member. Advisor: Dr. Martin Lindquist.

2024	*Ruzhang Zhao, Department of Biostatistics (PhD), Johns Hopkins Bloomberg School of Public Health. Thesis title: Role: alternate voting member. Advisor: Dr. Hongkai Ji.
2024	Zhirui Fu, Department of Biostatistics (ScM), Johns Hopkins Bloomberg School of Public Health. Thesis title: “Semiparametric Change Point Model for Survival Outcomes in the Presence of a U-Shaped Risk”. Role: advisor.
2024	Weixiao Dai, Department of Biostatistics (PhD), George Washington. Thesis title: “Patient-Centric Pragmatic Subgroup Analyses in Clinical Trials based on the Desirability of Outcome Ranking (DOOR)”. Role: voting member. Advisors: Scott R. Evans, and Toshimitsu Hamasaki.

#### Ad-hoc

2022 June-August	Internship program in collaboration with Eli Lilly; co-advising with Yu Du (Sr. Advisor   Statistics Group). Mentee: Dongliang Zhang.
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Mentoring, coaching and advising programs	NONE
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Assessment and Evaluation	NONE
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Program Building and Curriculum Development	NONE
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Educational Leadership	NONE
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Educational Demonstration Activities to external audiences	NONE
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## RESEARCH ACTIVITIES

### Research Focus

My research focuses on developing statistical methods for biomarkers and electronic medical records. I work on methods that combine biomarkers to predict cognitive decline related to preclinical Alzheimer's Disease among normal individuals. I also develop methods to evaluate misdiagnosis-related harm at institution or medical system levels using electronic medical records. Methodologically, I work on tree-based models, latent variable models, survival analysis, and recurrent event analysis. My general interest is in interpretable and robust statistical methodology that advances biomedical understanding and informs practices.

Research Program Building / Leadership	NONE
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Research Demonstration Activities	NONE
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Inventions, Patents, Copyrights	NONE
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Technology Transfer Activities	NONE
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## SYSTEM INNOVATION AND QUALITY IMPROVEMENT ACTIVITIES

NONE

## ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments	NONE
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Editorial Activities	NONE
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Editorial Board appointments	NONE
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### Journal peer review activities

2019-present	Biostatistics & Epidemiology
2021-present	Journal of the American Statistical Association
2021-present	Alzheimer's & Dementia
2022-present	HealthScienceReport
2022-present	Quality Management in Healthcare



2022-present	JAMA Pediatrics
2022-present	Journal of Alzheimer's Disease
2022-present	American Journal of Perinatology
2022-present	Biometrics
2023-present	Scientific Reports
2023-present	Informatics
2023-present	Alzheimer's Research & Therapy

Other peer review activities NONE

#### Advisory Committees, Review Groups/Study Sections

2024 February National Institute of Health, Analytics and Statistics for Population Research Panel B (ASPB).

Professional Societies NONE

#### Conference Organizer

JHMI/Regional  
2024 May 8<sup>th</sup> Annual Diagnostic Excellence Summit. Planning Committee member and moderator.

#### Professional Societies

2020-present Member, American Statistical Association  
2020-present Member, Eastern North American Region of the International Biometric Society

#### Session Chair

2021 August Joint Statistical Meetings. Invited Session "Advances and Challenges in Recent Diagnostic Research".  
2024 August Joint Statistical Meetings. Invited Session "Leveraging Biomarkers for Early Detection of Dementia and Acceleration of Drug Development".

Consultantships NONE

## RECOGNITION

#### Awards, Honors

#### Invited Talks

JHMI/Regional  
2024 "SPADE-based Regression Methods and Quality Measures for Quantifying Misdiagnosis-Related Harm", Anesthesiology and Critical Care Medicine Discovery Rounds, Baltimore, MD.  
2024 Quality and Safety Research Day. Reaction Panel panelist.

National  
2020 "Obtaining Optimal Rule for a Prefixed Tree Classifier", Michigan Statistics for Individualized-healthcare Lab (MiSIL), Department of Biostatistics, University of Michigan. Virtual.  
2023 October "The SPADE-Prediction Project", Society to Improve Diagnosis in Medicine Conference, Research and Education Day, Cleveland, OH.  
2024 August Joint Statistical Meeting. "Quantifying Misdiagnosis-related harm leveraging health record data and through mixture-model-based novel measures" in Invited Session "Navigating Electronic Health



Record Data for Deeper Insights: Case Studies and Statistical Solutions”. (Unable to present due to sudden illness, presented by co-author.)  
2025 March ENAR

Visiting Professorships NONE

## OTHER PROFESSIONAL ACCOMPLISHMENTS

### Oral/Podium Presentations

2016 “Optimal Decision Rule for Multiple Biomarkers Combined as Tree-based Classifiers”, Joint Statistical Meetings, Chicago, IL.  
2017 “Adaptive Estimation of High Dimensional Partially Linear Model with Some Provable Gains”, Joint Statistical Meetings, Baltimore, MD, and Conference on Frontiers of Big Data Statistical Sciences (organized by ICSA Canada Chapter), Vancouver, BC, Canada.  
2020 “Joint Rate Regression Models for Bivariate Recurrent Events with Frailty Processes”, Joint Statistical Meetings. Virtual.