

Ronan Perry

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Education

University of Washington

P.H.D. STATISTICS

Seattle, WA

Sept 2022 - Current

Johns Hopkins University

M.S.E. BIOMEDICAL ENGINEERING

Baltimore, MD

May 2020

Johns Hopkins University

B.S. APPLIED MATHEMATICS & STATISTICS

Baltimore, MD

Dec 2019

Research Positions

University of Washington

RESEARCH ASSISTANT (ADVISOR: DANIELA WITTEN)

Seattle, WA

Sept 2022 - Current

- Valid inference after data-driven hypothesis and model selection.

Max Planck Institute for Intelligent Systems

FULBRIGHT RESEARCH FELLOW (ADVISOR: BERNHARD SCHÖLKOPF)

Tübingen, Germany

Sept 2021 - July 2022

- Causal discovery from multi-environment data under distribution shifts.

Johns Hopkins University

RESEARCH ASSISTANT (ADVISOR: JOSHUA VOGELSTEIN)

Baltimore, MD

Jan. 2019 - July 2021

- Random forest theory/methods for improved calibration and structured data predictions.
- Network science and hypothesis testing in neuroscience applications.

Professional Experience

LinkedIn

APPLIED RESEARCH INTERN

Seattle, WA

June 2023 - September 2023

- Multitask finetuning of large language models.

Conferences & Presentations

2022 **NeurIPS**, (Accepted paper and poster)

New Orleans, USA

2022 **SIAM Conference on Mathematics of Data Science**, (Invited workshop talk)

San Diego, USA

2021 **NeurIPS**, (Out-of-distribution Learning Workshop Program Committee)

Virtual

2020 **Neuromatch**, (Accepted abstract and presentation)

Virtual

2020 **Organization of Human Brain Mapping**, (Accepted abstract and presentation)

Virtual

Publications

PhD thesis work

- [1] Ronan Perry, Snigdha Panigrahi, Jacob Bien, and Daniela Witten. “Inference on the proportion of variance explained in principal component analysis”. In: *Journal of the American Statistical Association* (July 2025).
- [2] Ronan Perry, Zichun Xu, Olivia McGough, and Daniela Witten. “Infer-and-widen, or not?” In: *arXiv* (May 2025). arXiv:2408.06323 [stat].

Peer-reviewed publications

- [1] Sambit Panda, Cencheng Shen, **Ronan Perry**, Jelle Zorn, Antoine Lutz, Carey E. Priebe, and Joshua T. Vogelstein. “Universally consistent K-sample tests via dependence measures”. In: *Statistics & Probability Letters* 216 (Jan. 2025), p. 110278.
- [2] **Ronan Perry**, Julius von Kügelgen, and Bernhard Schölkopf. “Causal Discovery in Heterogeneous Environments under the Sparse Mechanism Shift Hypothesis”. In: *Conference and Workshop on Neural Information Processing Systems (NeurIPS)* (2022).
- [3] Adam Li, **Ronan Perry**, Chester Huynh, Tyler M. Tomita, Ronak Mehta, Jesus Arroyo, Jesse Patsolic, Benjamin Falk, and Joshua T. Vogelstein. “Manifold Oblique Random Forests: Towards Closing the Gap on Convolutional Deep Networks”. In: *SIAM Journal on Mathematics of Data Science (SIMODS)* (2022).
- [4] **Ronan Perry**, Gavin Mischler, Richard Guo, Theodore Lee, Alexander Chang, Arman Koul, Cameron Franz, Hugo Richard, Iain Carmichael, Pierre Ablin, et al. “mvlearn: Multiview Machine Learning in Python”. In: *Journal of Machine Learning Research (JMLR)* 22.109 (2021), pp. 1–7.

Pre-prints

- [1] Danielle Tsao, **Ronan Perry**, and Carlos Cinelli. “On the minimum strength of (unobserved) covariates to overturn an insignificant result”. In: *arXiv* (Aug. 2024). arXiv:2408.13901 [math].
- [2] **Ronan Perry**, Ronak Mehta, Richard Guo, Eva Yezerets, Jesús Arroyo, Mike Powell, Hayden Helm, Cencheng Shen, and Joshua T. Vogelstein. “Random Forests for Adaptive Nearest Neighbor Estimation of Information-Theoretic Quantities”. In: *arXiv* (2021). arXiv:1907.00325.

Teaching

2025	Teaching Assistant , BIOST 588: Statistical Machine Learning for Data Scientists	UW
2024	Teaching Assistant , BIOST 588: Statistical Machine Learning for Data Scientists	UW
2019	Teaching Assistant , Applied Math 430: Introduction to Statistics	Johns Hopkins
2018	Teaching Assistant , Applied Math 420: Introduction to Probability	Johns Hopkins

Open Source Software

mvlearn	[Owner] A <i>Python</i> package for multiview learning methods. mvlearn.github.io
honest-forests	[Owner] A <i>Python</i> package for scikit-learn compliant honest decision forests. Github
hyppo	[Contributor] A <i>Python</i> package for multivariate hypothesis testing. Github
graspologic	[Contributor] A <i>Python</i> package for modeling and inference on network-valued data. Github