

Alec McClean

Contact	5000 Forbes Ave, Pittsburgh PA, 15213 https://alecmcclean.github.io alec@stat.cmu.edu mccleanalec@gmail.com
Education	Carnegie Mellon University Ph.D., Statistics May 2024 <i>Thesis: Heterogeneity, Optimality, and Sensitivity in Causal Inference</i> (Expected) M.S., Statistics May 2021 Swarthmore College B.A., Economics and Mathematics May 2016 <i>Phi Beta Kappa</i>
Research Interests	Theory: causal inference; functional estimation; nonparametric and machine learning methods Applications: economics; healthcare services research; criminology; medicine
Research Projects	Matteo Bonvini*, Alec McClean *, Zach Branson, and Edward H. Kennedy. “Incremental causal effects: an introduction and review.” In Handbook of Matching and Weighting Adjustments for Causal Inference, pp. 349-372. Chapman and Hall/CRC, 2023. *Equal contribution Alec McClean , Zach Branson, and Edward H. Kennedy. “Nonparametric Estimation of Conditional Incremental Effects.” arXiv preprint arXiv:2212.03578 (2022). <i>Accepted at the Journal of Causal Inference</i> Poster presentations at ACIC 2022, ENAR Spring Meeting 2023, and JSM 2023 Leah A. Jacobs, Alec McClean , Zach Branson, Edward H. Kennedy, and Alex Fixler. “Incremental Propensity Score Effects for Criminology: An Application Assessing the Relationship Between Homelessness, Behavioral Health Problems, and Recidivism.” arXiv preprint arXiv:2305.14040 (2023). <i>Accepted at the Journal of Quantitative Criminology</i>
Ongoing Work	Alec McClean , Edward H. Kennedy, Sivaraman Balakrishnan, and Larry Wasserman. “Double Cross-fit Doubly Robust Estimators: Beyond Series Regression.” (2023). <i>Winner of the Ten Have poster competition at ACIC 2023</i> Alec McClean , Zach Branson, Edward H. Kennedy. “Automatically Calibrated Sensitivity Models for Nonparametric Causal Inference with Unmeasured Confounding.” (2023). Invited presentation at CMStatistics 2023
Software	Contributor to <code>npcausal</code> R package https://github.com/ehkennedy/npcausal .

Academic Service	Referee for <i>Bernoulli</i> Referee for <i>American Journal of Epidemiology</i> CMU Statistics Student Activities Committee representative CMU Statistics Student Mentor Pittsburgh ASA CMU student representative	2019 - Present 2020 - Present 2022 - Present
Teaching	Department of Statistics and Data Science, Carnegie Mellon University As Course Instructor <i>Undergraduate Introduction to Statistical Inference</i> As Teaching Assistant <i>Undergraduate Introduction to Statistical Inference (Head TA and backup instructor)</i> <i>Graduate Intermediate Statistics (Head TA)</i> <i>Undergraduate Optum Summer Research Experience</i> <i>Undergraduate Causal Inference</i> <i>Graduate Causal Inference</i> <i>Undergraduate Advanced Methods for Data Analysis (Head TA)</i> <i>Undergraduate Methods for Statistics</i> <i>Undergraduate Modern Regression</i>	Summer 2022 Spring 2024 Fall 2023 Summer 2023 Spring 2022 & 2023 Fall 2022 Spring 2021 Summer 2021 Fall 2019
	Heinz College of Information Systems and Public Policy, Carnegie Mellon University <i>Graduate Statistical Reasoning with R (Head TA)</i>	Fall 2020 & 2021
Awards	Tom Ten Have award for “exceptionally creative or skillful research on causal inference” at the 2023 American Causal Inference Conference Carnegie Mellon University Graduate Student Assembly Travel awards to present research at (1) 2023 CMStatistics, (2) 2023 Joint Statistical Meetings, and (3) 2022 American Causal Inference Conference Phi Beta Kappa , Swarthmore College	Spring 2016
Work Experience	Senior Research Analyst , The Brattle Group <ul style="list-style-type: none"> • Managed teams of 10+ junior analysts in developing econometric and statistical models (including zero-inflated Poisson, Cox survival, and hierarchical Bayes) to create a state-of-the-art economic structural model of the health insurance industry. • Acquired extensive case experience in the health care industry with a focus on modelling expected claims incurred by health insurance subscribers and company likeliness to switch insurers. Research Analyst , The Brattle Group <ul style="list-style-type: none"> • Cleaned, analyzed, and organized large data sets (> 100 GBs) using SQL, R, and Python. • Created a >50 script data processing pipeline to efficiently clean and collate several TBs of data into analyzable data sets for project team use. 	2018 - 2019 2016 - 2018
Skills	R, Python, L ^A T _E X, Microsoft Office	