

Amy J. Pitts

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Date of Preparation

September 6, 2024

Education

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| 08/2020 – 05/2025
(Expected) | Columbia University, New York NY
PhD in Biostatistics
<i>Thesis title:</i> Methods to Reduce Selection and Confounding Bias in
Observational and Clinical Studies
Advisor: Dr. Caleb Miles & Dr. Qixuan Chen |
| 08/2016 – 05/2020 | Marist College, Poughkeepsie NY
B.S. with honors in Mathematics, <i>summa cum laude</i> , May 2020
Dual Majors: Applied Mathematics and Data Science & Analytics
Minor: Computer Science |
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Training

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| 09/2023 – Present | T32 Substance Abuse Epidemiology Training Program
Department of Epidemiology, Columbia University
Advisors: Dr. Kara Rudolph & Dr. Caleb Miles |
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Experience

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| Summer 2024 | Associate Health Care Intern
Analysis Group, NYC
Health Economics and Outcome Research and Epidemiology Team |
| Summer 2021 | Biostatistics Graduate Research Internship
Bristol Myers Squibb, NYC
Early Clinical Trial Biostatistics Department |
| Summer 2019 | Quantitative Sciences Undergraduate Research Experience (QSURE)
Department of Epidemiology & Biostatistics Memorial Sloan Kettering |

Summer 2018 Cancer Center, New York, NY
 Advisor: Dr. Sujata Patil
 Research Experience for Undergraduates (REU)
 Department of Mathematics, Lafayette College, Easton, Pennsylvania
 Advisor: Dr. Jeffery Liebner

Honors & Awards

2024 Poster Award from the Joint Statistical Meeting Survey Research Method Section at the 2024 Joint Statistical Meetings in Portland, Oregon
 2024 Travel award from the Survey Research Methods Section to attend the 2024 Joint Statistical Meetings in Portland, Oregon
 2020 Marist College Excellence in Mathematics Award
 2019 – 2020 President, Marist College Alpha Pi Chapter, Pi Mu Epsilon Honors Society
 2019 – 2020 President and Founder, Association for Women in Mathematics Chapter at Marist College
 2019 Outstanding Poster Award, Joint Mathematics Meetings
 2018 Recipient of the Marist College Early Career Undergraduate Mathematics Research Award
 2018 Awarded Best Visualization at DataFest located at Vassar College
 2016 – 2020 Scholarship, Marist College Merit Scholarship

Academic Service

2023 – 2024 TA Training Workshop, Columbia University Biostatistics Department
 2021 – 2023 Student Committee, Columbia University Biostatistics Department Master Practicum Symposium

- Chair 2023
- Member 2021–2022

 2020 – Present Planning Committee, Columbia University Biostatistics Computing Club
 2019 Student Subcommittee Chair, Marist Math Department Faculty Search Committee

Professional Organizations, Societies and Service

Journal Reviewer

Global Epidemiology (Spring, 2024)

Memberships

04/2024 – Present Society for Causal Inference
 01/2024 – Present American Statistical Association (ASA)

03/2023 – Present	Eastern North American Region (ENAR) of the International Biometrics Society
05/2023 – Present	American Association for Public Opinion Research (AAPOR)

Educational Contributions

Direct Teaching

Summer 2023 Introduction to R for Data Science (13 enrolled students)

Teaching Assistant

Fall 204 Department of Biostatistics, Columbia University
Course: Data Science I

Professor: Jeff Goldsmith

Spring 2023 Department of Biostatistics, Columbia University
Course: Data Science II

Professor: Yifei Sun

Fall 2022 Department of Biostatistics, Columbia University
Course: Statistical Methods for Causal Inference

Professor: Linda Valeri

Spring 2022 Department of Biostatistics, Columbia University
Course: Biostatistical Methods II

Professor: Bin Cheng

Fall 2021 Department of Biostatistics, Columbia University
Course: Introduction to Randomized Clinical Trials

Professor: John LP Thompson

Spring 2021 Department of Biostatistics, Columbia University
Course: Introduction to Data Science in R

Professor: Cale Basaraba

Tutoring

2018 – 2020 Math Lab Lead Tutor
Department of Mathematics, Marist College
Supervised, trained, and administrated staff of six students.

Publications

Peer Reviewed Articles

1. **Pitts, A.J.** & Fowler, C.R. (2024) “Comparison of open-source software for producing directed acyclic graphs”. *Journal of Causal Inference*. <https://doi.org/10.1515/jci-2023-0031>

2. Singh, T., **Pitts, A.J.**, Miles, C.H., Ing, C.H. (2023) “Anesthetic Exposure During Early Childhood and Neurodevelopmental Outcomes: Our Current Understanding”. *Current Anesthesiology Reports*. <https://doi.org/10.1007/s40140-023-00592-y>
3. Lawlor, M.K., Ng, V., Ahmed, S., Dershowitz, L., Brener, M.I., Kampaktsis, P., **Pitts, A.**, Vahl, T., Nazif, T., Leon, M. and George, I. (2023). “Baseline characteristics and clinical outcomes of a tricuspid regurgitation referral population”. *The American Journal of Cardiology*, 196, (pp.22-30).
4. Lawlor, M., Ng, V.G., Ahmed, S., Dershowitz, L., Brener, M., Kampaktsis, P., **Pitts, A.**, Vahl III, T.P., Nazif, T., Leon, M.B. and George, I., 2023. “Right Atrial Pressure in Pulmonary Hypertension Assessment in Tricuspid Regurgitation”. *Journal of the American College of Cardiology*, 81(8_Supplement), pp.1970-1970.
5. **Pitts, A.**, & Rivas, P. (2019). “Finding Time Series Breakpoints with Fully Connected Neural Networks”. In *Proceedings on the International Conference on Artificial Intelligence (ICAI)* (pp. 352-357). ISBN: 1-60132-501-0.

Select Works in Progress

1. Duong, N. Q., **Pitts, A.J.**, Kim, S., & Miles, C.H. (2023). “Sensitivity analysis for transportability in multi-study, multi-outcome settings”. *arXiv preprint arXiv:2301.02904*.
2. **Pitts, A.J.**, Yomogida, M. Aidala, A. Gelman, A. Chen, Q. “Multilevel Regression and Poststratification using Margins of Post-Stratifiers: Improving Inference for HIV Health Outcomes During the COVID-19 Pandemic” *submitted for review (Aug, 2024)*.
3. **Pitts, A.J.**, Guo, Ling., Ing, Caleb., Miles, Caleb. “Overcoming an extreme positivity violation to distinguish the causal effects of surgery and anesthesia using a separable effects model.” *in progress*.

Conference Activity

Contributed Talks

1. **Pitts, Amy.** “Using a separable effects model to overcome extreme positivity violation and distinguish the causal effects of surgery and anesthesia” *Eastern North American Region (ENAR)*. Baltimore, MD. Mar 2024.
2. **Pitts, Amy.** Yomogida, Maiko. Aidala, Angela. Gelman, Andrew. Chen, Qixuan. “Inference of health outcomes among patients with HIV during covid-19 pandemic: using mrp model to improve survey representativeness”, *American Association for Public Opinion Research (AAPOR)*. Philadelphia, PA. May 2023.
3. **Pitts, Amy.** & Rivas, Pablo. “Finding time series breakpoints with fully connected neural networks” *International Conference of Artificial Intelligence*. Las Vegas, NV. July 2019.
4. **Pitts, Amy.** Haglich, Kathryn. & Neitzel, Sarah. “A Bayesian method for locating breakpoints in time series” *Joint Mathematics Meetings*. Baltimore, MD. Jan 2019.

Posters

1. **Pitts, Amy.** Yomogida, Maiko. Aidala, Angela. Gelman, Andrew. Chen, Qixuan. “Multilevel Regression & Poststratification with Population Margins: Application to HIV Inference” *Joint Statistical Meeting (JSM)*, Portland OR. Aug 2024.
 2. **Pitts, Amy.** Guo, Ling. Ing, Caleb. Miles, Caleb. “Using a separable effects model to overcome extreme positivity violation and distinguish the causal effects of surgery and anesthesia” *American Causal Inference Conference (ACIC)*. Seattle, WA. May 2024.
 3. **Pitts, Amy.** Yomogida, Maiko. Aidala, Angela. Gelman, Andrew. Chen, Qixuan. “Inference of health outcomes among patients with HIV during covid-19 pandemic: using mrp model to improve survey representativeness” *Eastern North American Region (ENAR) Poster Session*. Mar 2023.
 4. **Pitts, Amy.** Haglich, Kathryn. Neitzel, Sarah. & Liebner, Jeffery. “A Bayesian method for locating breakpoints in time series” ACM New York Celebration of Women in Computing. Lake George, NY. April 2019.
 5. **Pitts, Amy.** Haglich, Kathryn. Neitzel, Sarah. & Liebner, Jeffery. “A Bayesian method for locating breakpoints in time series” Joint Mathematics Meeting. Baltimore, MD. January 2019.
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Presentations

Invited Talks

1. **Pitts, Amy.** Guo, Ling. Ing, Caleb. Miles, Caleb. “Using a separable effects model to overcome extreme positivity violation and distinguish the causal effects of surgery and anesthesia” Columbia Biostatistics Annual Research Symposium (CBARS). Sept 2023.
2. **Pitts, Amy.** “Predicting Mesothelioma Disease Status Using Demographic, Clinical, and Exposure-Related Factors”, Marist College Pi Mu Epsilon Induction Ceremony. May 2021

Campus/Other Talks

1. **Pitts, Amy.** Fowler, Charlotte. “Software to Draw DAGs”, Causal Inference Learning Group, Biostatistics Department, Columbia University. Feb 2023.
2. **Pitts, Amy.** “R-Shiny Crash Course” Columbia Biostatistics Computing Club. Biostatistics Department, Columbia University. Nov 2022.
3. **Pitts, Amy.** Kwizera, Muhire. “Python Tutorial” Columbia Biostatistics Computing Club. Biostatistics Department, Columbia University. Zoom. Dec 2020.
4. **Pitts, Amy.** “Seminar: tutorial on R-Shiny” Marist College Department of Mathematics. Poughkeepsie, NY. Nov 2019.
5. **Pitts, Amy.** “My Research Experience at Memorial Sloan Kettering Cancer Center” Marist College Department of Mathematics. Poughkeepsie, NY. Oct 2019.
6. **Pitts, Amy.** “Overleaf Overview” Department of Epidemiology and Biostatistics at Memorial Sloan Kettering Cancer Center. New York, NY. Aug 2019.
7. **Pitts, Amy.** “Missing Data in Cancer Studies” QSURE Final Presentations hosted in the Department of Epidemiology and Biostatistics at Memorial Sloan Kettering Cancer Center. New York, NY. July 2019.

8. **Pitts, Amy.** “My Research Experience at Lafayette College” Marist College Department of Mathematics. Poughkeepsie, NY. September 2018.