# Jacob M. Chen

✉ jacobchen01@gmail.com     ✉ jchen459@jhu.edu     ⓞ GitHub: jacobmchen     https://jacobmchen.github.io

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## Education

**Johns Hopkins University**, Baltimore, MD                                              July 2024 – Present
*M.S. and Ph.D. in Computer Science; Advised by Dr. Ilya Shpitser.*
**Williams College**, Williamstown, MA                                              Sept. 2019 – Dec. 2023
*B.A. Major in Computer Science & Concentration in French and Francophone Studies*
Thesis: *Causal Inference with Outcome-Dependent Missingness And Self-Censoring*

## Publications

1. **Jacob M. Chen**, Rohit Bhattacharya, Katherine A. Keith, "Proximal Causal Inference with Text Data," on arXiv preprint, 2024.
2. Julie Joss, **Jacob M. Chen**, Nicolas Prost, Gaël Varoquaux, Erwan Scornet, "On the consistency of supervised learning with missing values," in Statistical Papers, 2024.
3. **Jacob M. Chen**, Daniel Malinsky, Rohit Bhattacharya, "Causal Inference with Outcome-Dependent Missingness and Self-Censoring," in Proceedings of the 39th Conference on Uncertainty in Artificial Intelligence (UAI), 2023
   – Acceptance rate 243/778=31.2%. Chosen for a poster spotlight presentation (32/243=13.2%).

## Research Interests

– Causal Inference, Missing Data, Graphical Models, Machine Learning, Applications in Healthcare and the Social Sciences, Computer Science Education

## Teaching Experience

**Residential Teaching Fellow**, Phillips Exeter Academy, Exeter, NH                                 June – Aug. 2022
– Utilized Harkness pedagogy to instruct high school students in three courses – Introduction to Computer Science, Mobile App Development, and Game Programming – at a prestigious summer school program. Additionally, served as a dorm faculty for high school boys boarding in dormitories during the summer program.
**Teaching Assistant in Computer Science Department**, Williams College                 Feb. 2021 – May 2023
– Data Structures & Advanced Programming (Spring '21), Algorithm Design & Analysis (Spring '22), Introduction to Computer Science (Fall '21, Fall '22, & Spring '23)
**Lanesborough Elementary School Teaching Fellow**, Lanesborough, MA                 Jan. 2022 – May 2023
– Assisted in a 4th grade classroom with math and science courses and a kindergarten classroom with an English as a second language student. Gave a presentation introducing Taiwan and its culture to elementary school students.
**Teacher for AP Computer Science**, Nuts Institute, Hsinchu, Taiwan                 July 2020 – Jan. 2021
– Taught fundamentals of Java to high school students with no previous programming experience in preparation for the AP Computer Science A exam. Prepared my own class materials and lesson plans.

## Honors & Awards

– *Finalist for the CRA Undergraduate Research Award*, Computing Research Association (CRA), 2024
– *Sam Goldberg Prize*, Williams College, 2023
  Awarded for the best thesis presentation in computer science.
– *Sigma Xi Society*, Williams College, 2023
  Inducted into the Sigma Xi Society for excellence in research.
– *Dean's List*, Williams College, 2019-2023

## Presentations & Talks

1. **Jacob M. Chen**, Rohit Bhattacharya, and Katherine A. Keith. "Proximal Causal Inference with Text Data." Poster presentation at the American Causal Inference Conference (ACIC), Seattle, WA, May 2024.
2. **Jacob M. Chen**, Daniel Malinsky, and Rohit Bhattacharya. "Causal Inference with Outcome Dependent Missingness and Self-Censoring." Poster spotlight presentation at Uncertainty in Artificial Intelligence (UAI), Pittsburgh, PA, July 31 - August 4, 2023.
3. **Jacob M. Chen**. "Causal Inference with Outcome Depending Missingness and Self-Censoring." Thesis presentation and defense before the computer science department at Williams College, Williamstown, MA, May 2023.
4. **Jacob M. Chen**, Daniel Malinsky, and Rohit Bhattacharya. "Causal Inference with Outcome Dependent Missingness and Self-Censoring." Poster presentation at the American Causal Inference Conference (ACIC), Austin, TX, May 2023.
5. **Jacob M. Chen** and Rohit Bhattacharya. "On Covariate Adjustment in Missing Not at Random Models." Poster presentation at the American Causal Inference Conference (ACIC), Berkeley, CA, May 2022.

## Professional Activities

– *Reviewer*, Conference on Uncertainty in Artificial Intelligence (UAI), 2024.

## Work Experience

**Software Engineer**, Seknova Biotechnology Co., Taiwan                                              June – Aug. 2019
– Designed and developed independently Windows graphical user interface tools in Java and developed an Android App for an external blood glucose monitoring device.

## Community Service

**Crisis Text Line**, Remote                                                                                        Since Feb. 2021
– Crisis Text Line provides free, 24/7 support for people in crisis via a medium people already use and trust: text.

## Skills & Language

– English – Fluent, Mandarin – Fluent, French – Intermediate (A2/B1), Japanese – Basic
– Python Machine Learning & Causal Inference
– Computer: Android Java App Development, Python, Java, C, R