Tim White

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Education

University of Michigan   **2022 - Present**
Ph.D. in Statistics   Ann Arbor, MI
GPA: 3.85

University of Minnesota   **2018 - 2022**
B.S. in Statistical Science, *summa cum laude*   Minneapolis, MN
Secondary Major in Economics (Quantitative Emphasis)   GPA: 4.00
Minor in Mathematics

Research Experience

School of Statistics, University of Minnesota   **May 2021 - May 2022**
Undergraduate Researcher   Minneapolis, MN

- Served as the primary investigator on a project under the supervision of Dr. Sara Algeri that involved the estimation of false positive probabilities in medical screening tests
- Compiled the guidelines and evidence published by the United States Preventive Services Task Force (USPSTF) into a comprehensive data set on screening test accuracy
- Specified a model and used the parametric bootstrap to estimate the probability of receiving at least one false positive result in a lifetime

Department of Applied Economics, University of Minnesota   **May 2020 - August 2020**
Undergraduate Research Assistant   Minneapolis, MN

- Assisted Dr. Jason Kerwin and his research team by cleaning economic data for their working paper entitled "Appointments: A More Effective Commitment Device for Health Behaviors"
- Developed functional programming skills in R while writing code to obtain summary statistics, address missing or invalid data, and perform variable transformations
- Conducted a review of economic research journals to evaluate their methodological standards and identify potential targets for publication

Work Experience

Minnesota Population Center   **January 2019 - May 2022**
Undergraduate Research Assistant   Minneapolis, MN

- Contributed to the IPUMS International project by using SPSS and Microsoft Excel to clean and harmonize census and survey microdata from over 100 countries for use by social science researchers
- Composed programming scripts and analyzed IPUMS data to assist Dr. Lara Cleveland with special projects, most notably a collaboration with the United Nations Population Fund (UNFPA) on a forthcoming publication about household structure and population aging
- Supervised the project's undergraduate internship program and taught the interns to convert census and survey questionnaires into HTML documents

United Nations Population Fund (UNFPA)   **September 2021 - March 2022**
Intern, Population and Development Branch   New York, NY (remote)

- Facilitated the construction of small area estimation models by harmonizing explanatory variables between national censuses and Demographic and Health Surveys
- Wrote reproducible R scripts to clean, reformat, and perform quality checks for demographic data from Benin, Ghana, and Sierra Leone
- Studied census and survey documentation and reviewed the relevant economic and sociological literature to identify potential predictors of Sustainable Development Goal (SDG) indicators

Teaching Experience

Department of Statistics, University of Michigan   **August 2022 - Present**
Graduate Student Instructor   Ann Arbor, MI

    Winter 2023   STATS 306: Introduction to Statistical Computing

    Fall 2022   STATS 250: Introduction to Statistics and Data Analysis

Extracurricular Experience

College of Liberal Arts Student Board, University of Minnesota   **September 2019 - May 2022**
Data Analyst   Minneapolis, MN

180 Degrees Consulting, University of Minnesota   **September 2019 - December 2019**
Strategy Consultant   Minneapolis, MN

Publications

1. **White, T.** & Algeri, S. (2023). Estimating the lifetime risk of a false positive screening test result. *PLoS ONE*, *18*(2), e0281153. https://doi.org/10.1371/journal.pone.0281153

2. Zhang, S., Simelane, S., Cleveland, L., **White, T.**, Jhamba, T., & Snow, R. (2023+). *Household structure and older persons*. United Nations Population Fund. Under revision.

Presentations

August 2022   *Estimating the lifetime risk of a false positive screening test result*. Joint Statistical Meetings. Washington, DC.

December 2021   *Estimating the lifetime risk of a false positive screening test result*. MinneAnalytics Women in Analytics and Data Science Conference. St. Paul, MN. Canceled due to COVID-19.

Software

1. **White, T.** (2022). MLBdash. https://twhit.shinyapps.io/MLBdash/

2. **White, T.** (2021). The False Positives Calculator. https://falsepositives.shinyapps.io/calculator

Honors and Awards

1. **Buehler Memorial Undergraduate Award**. School of Statistics, University of Minnesota. Spring 2022.

2. **Honorable Mention, ASA Student Paper Competition**. American Statistical Association, Section on Medical Devices and Diagnostics. Spring 2022.

3. **J. Robert and Marilyn C. Roach Endowed Scholarship in Economics**. Department of Economics, University of Minnesota. Fall 2020 - Spring 2021.

4. **Junior Fellow, Joint Program in Survey Methodology**. University of Maryland - College Park. Summer 2020 (program canceled due to COVID-19).

5. **College of Liberal Arts Dean's List**. University of Minnesota. Fall 2018 - Spring 2022.

6. **Gold Scholar Award**. University of Minnesota. Fall 2018 - Spring 2022.

Other Reports and Projects

1. **White, T.** (2023). Efficient initialization of the EM algorithm for Gaussian mixture models. STATS 606 project, University of Michigan. https://timwhite0.github.io/project/initializing_em

2. **White, T.** (2022). A resampling technique for massive data in settings of bootstrap inconsistency. Undergraduate honors thesis, University of Minnesota. https://timwhite0.github.io/project/honors_thesis

3. **White, T.** (2022). Census and survey data harmonization for small area estimation. Internship report, United Nations Population Fund.

Technical Skills

- C++
- LaTeX
- Python
- R
- SQL