

# ABIGAIL LOE

☎ +1 952 270 4443

✉ [agloe@umich.edu](mailto:agloe@umich.edu)

🏠 1415 Washington Heights, Ann Arbor, MI

## EDUCATION

April 2026	UNIVERSITY OF MICHIGAN, ANN ARBOR MI PhD Biostatistics (Expected)
April 2023	UNIVERSITY OF MICHIGAN, ANN ARBOR MI M.S. Biostatistics, GPA:3.94
June 2021	CARLETON COLLEGE, NORTHFIELD MN B.A. <i>Cum Laude</i> , Mathematics (Women's & Gender Studies) GPA:3.83 PROGRAMMING LANGUAGES Python, Java, MATLAB, R, SAS, SQL

## RESEARCH

Jan 2023 - Present	UNIVERSITY OF MICHIGAN, PRECISIONS CLINICAL TRIAL <b>Statistical Analyst</b> <ul style="list-style-type: none"><li>· Analyzed combined survival endpoints for a clinical trial investigating a novel treatment for Idiopathic Pulmonary Fibrosis</li><li>· Collaborated with MDs to combine statistical and medical knowledge into patient deliverables</li></ul>
Jan 2022 - Present	UNIVERSITY OF MICHIGAN, <a href="#">MISIL LAB</a> <b>Graduate Student Research Assistant</b> <ul style="list-style-type: none"><li>· Developed flexible regression methods for time-to-recurrent-event data under the direction of D. Zhenke Wu and Dr. Susan Murray</li><li>· Synthesized existing methods for <math>\tau</math>-restricted event time analysis</li></ul>
Sep 2020 - March 2021	UNIVERSITY OF MINNESOTA, <a href="#">AMAAZE GROUP</a> <b>Undergraduate Research Assistant</b> <ul style="list-style-type: none"><li>· Created mathematical definitions to aid anthropologists in measuring and classifying fossilized bone breaks</li></ul>
Jun 2020 - Aug 2020	WEZESHA, DUBLIN, COUNTY DUBLIN IRELAND <b>Researcher and Strategic Planner</b> <ul style="list-style-type: none"><li>· Researched strategies to reduce sexual and gender-based violence in the Democratic Republic of Congo, Kenya, Nigeria and South Africa</li><li>· Synthesized the actions of the non-profit over five years and made recommendations for future goals to reduce violence and improve the lives of women and children.</li></ul>
Jun 2019 - Aug 2019	BARRIOS RESEARCH GROUP, POMONA COLLEGE, CLAREMONT CA <b>Pomona College REU Summer Fellow</b> <ul style="list-style-type: none"><li>· Performed original research about elliptic curves with non-trivial isogeny under the direction of Dr. Alex Barrios and Dr. Edray Goins</li><li>· Used algebraic geometry and number theory to prove the first constructive results about minimal discriminants of rational elliptic curves</li></ul>
Nov 2019 - Dec 2019	CARLETON COLLEGE, DEPARTMENT OF MATHEMATICS <b>Undergraduate Research Assistant</b> <ul style="list-style-type: none"><li>· Continued work of the previous summer to finish classifying isogeny degrees</li><li>· Developed new software to generate largest database of elliptic curves with specified isogeny</li></ul>

## TEACHING

Dec 2023	UNIVERSITY OF MICHIGAN, DEPARTMENT OF BIOSTATISTICS <b>Biostatistics 523 Guest Lecturer</b> <ul style="list-style-type: none"><li>· Guest lectured on “Random Forest Regression and Survival Data” in a course aimed for second-year Master’s of Public Health students</li></ul>
Aug 2022 - Dec 2022	UNIVERSITY OF MICHIGAN, DEPARTMENT OF BIOSTATISTICS <b>Study Group Facilitator, Probability and Distribution Theory</b> <ul style="list-style-type: none"><li>· Taught a study section once a week to first-year Biostatistics students in their core probability course</li></ul>
Aug 2021 - Dec 2021	UNIVERSITY OF MICHIGAN, DEPARTMENT OF BIOSTATISTICS <b>Applied Biostatistics Graduate Student Instructor</b> <ul style="list-style-type: none"><li>· Taught two lab sections once a week, held office hours, and engineered the shift to Gradescope for the entire course</li></ul>
Sep 2020 - Nov 2020	CARLETON COLLEGE, DEPARTMENT OF MATHEMATICS <b>Calculus with Review Teaching Assistant</b> <ul style="list-style-type: none"><li>· Supported Professor Deanna Haunsperger by teaching seven TA sections a week, and providing targeted one-on-one tutoring</li></ul>
Sep 2019 - Nov 2020	CARLETON COLLEGE ACADEMIC SKILLS CENTER <b>Mathematics Skills Center Tutor</b> <ul style="list-style-type: none"><li>· Presented mathematical approaches to students in Calculus 1 (MATH 111), Calculus 2 (MATH 120), Calculus 3 (MATH 210), Linear Algebra (MATH 232), Mathematical Structures (MATH 236), Probability (MATH 265)</li></ul>
April 2019 - June 2021	CARLETON COLLEGE, DEPARTMENT OF MATHEMATICS <b>Grader and Tutor</b> <ul style="list-style-type: none"><li>· Classes Supported: Linear Algebra (MATH 232), Mathematical Structures (MATH 236), Statistical Inference (STAT 250)</li></ul>

## PUBLICATIONS

**Loe, A, Murray, S and Wu, Z** (2024) “Random Forest for Dynamic Risk Prediction of Recurrent Events: A Pseudo-Observation Approach”. Submitted to *Biostatistics*, [preprint available on the ArXiv](#).

**Loe, A** (2022) “Just Statistics: Statistical Analysis, *In the Dark*, and the Failure of the U.S. Justice System”. *Undergraduate Journal of Humanistic Studies*, [Winter 2022, Volume 12](#).

Barrios, A; Cornejo, A; Ekblad, O; Geist, M; Harrison, K; **Loe, A**; “Minimal Discriminants of Rational Elliptic Curves with Non-trivial Isogeny” (In preparation).

## PRESENTATIONS

**Loe, A**; “Analysis of Recurrent Event Data via Random Forest for Dependent Pseudo-Observations”. Eastern North American Region of the International Biometrics Society, March, 2024; Baltimore, MD. *Contributed Paper*

**Loe, A**; “Random Forest Regression and Survival Analysis”. Biostatistics 523, December, 2023; Ann Arbor, MI. *Guest Lecture*

**Loe, A**; “Analysis of Recurrent Event Data via Random Forest for Dependent Pseudo-Observations”. Joint Statistical Meetings, August, 2023; Toronto, ON, Canada. *Contributed Papers*

**Loe, A**; “Just Statistics: Statistical Analysis, *In the Dark*, and the Failure of the U.S. Justice System”. Michigan Student Symposium for Interdisciplinary Statistical Sciences, March, 2022; Ann Arbor, MI. *Speed Presentation*

**Loe, A;** “Just Statistics: Statistical Analysis, *In the Dark*, and the Failure of the U.S. Justice System”. Michigan Student Symposium for Interdisciplinary Statistical Sciences, March, 2022; Ann Arbor, MI. *Poster Session*

**Loe, A;** Geist, M; “Minimal Discriminants of Rational Elliptic Curves” Joint Mathematics Meeting, January, 2020; Denver, CO. *Number Theory Section*

**Loe, A;** Geist, M; Ekblad O; Cornejo A; “Minimal Discriminants of Rational Elliptic Curves & the Szpiro Ratio” Joint Mathematics Meeting, January, 2020; Denver, CO. *Undergrad Poster Session*

**Loe, A;** “The ABC Conjecture” Nebraska Conference for Undergraduate Women in Mathematics 2020; Lincoln, NE *Poster Session*

**Loe, A;** Geist, M. “Minimal Discriminants of Rational Elliptic Curves,” St. Olaf College, October, 2019; Northfield, MN *Northfield Undergraduate Mathematics Symposium*

**Loe, A;** Ekblad, O. “The ABC Conjecture & the Szpiro Ratio” Mathematical Association of America MathFest 2019; Cincinnati, OH *Undergraduate Research Presentations*

## SERVICE AND LEADERSHIP

2022-2023	University of Michigan Department of Biostatistics, <b>Faculty Search Committee</b>
2021-Present	University of Michigan School of Public Health, <b>Admissions Ambassador</b>
2021- 2022	University of Michigan, <b>Statistics in the Community:</b> Poverty Solutions Project
2021-2022	University of Michigan Department of Biostatistics, <b>Curriculum Committee Member</b>
2021-2024	University of Michigan School of Public Health, <b>Public Health Action Support Team</b>
2020-2021	Carleton College Department of Mathematics, <b>Student Departmental Advisor</b>
2017-2020	Carleton College Varsity Volleyball, <b>Captain</b>
2018-2021	Carleton College Gender Minorities in Math & Stats, <b>Board Member</b>
2017-2021	Carleton College Student-Athlete Advisory Committee, <b>Team Representative</b>
2020-2022	<a href="#">Rice County Hope Center</a> , SafeLine Volunteer
2018-2019	Carleton College Varsity Track & Field, High Jump

## AWARDS AND GRANTS

2022	<a href="#">MSSIIS</a> , Best Masters Student Presentation
2021	Carleton College Sigma Xi Chapter
2020	Global Edge Fellowship, Carleton College (\$4000)
2019	Kolenkow-Reitz Fellowship, Carleton College (\$1440)
2019	National Science Foundation REU, Pomona College
2019	MAA MathFest Best Undergraduate Presentation