Ashley E. Mullan

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EDUCATION

Vanderbilt University — Nashville, TN
Ph.D. in Biostatistics, GPA: 4.00/4.00 — Expected May 2029

Wake Forest University — Winston-Salem, NC
M.S. in Statistics, GPA: 4.00/4.00 — May 2024
Graduate Certificate in Data Science, GPA: 4.00/4.00
Thesis Advisor: Sarah Lotspeich, Ph.D.

- Thesis: Adjusting for covariate misclassification to quantify the relationship between diabetes and local access to healthy food

University of Scranton — Scranton, PA
B.S. in Applied Mathematics and B.A. in Philosophy, *Summa Cum Laude*, GPA: 3.94/4.00 — May 2022
Minors in Computer Science and Finance, Concentration in Data Science
Honors Program, Special Jesuit Liberal Arts Honors Program
Thesis Advisor: Murong Xu, Ph.D.

- Thesis: Music Feature Classification: Using Techniques of Machine Learning to Detect Genre
- Available from https://digitalservices.scranton.edu/digital/collection/p15111coll1/id/1340/rec/68

St. Anthony's High School — South Huntington, NY
Advanced Regents Diploma — June 2018

RESEARCH AND WORK EXPERIENCE

10. **Research Assistant** — Nashville, TN
 Vanderbilt University Medical Center, Department of Biostatistics — July 2024 – Present
 Mentor: Rameela Raman, Ph.D.

9. **Lead Teaching Assistant** — Winston-Salem, NC
 Wake Forest University, Departments of Statistical Sciences and Mathematics — Mar 2023 – May 2024
 Mentor: Lynne Yengulalp, Ph.D.

 - Managed scheduling and logistics for over 70 teaching assistants and tutors
 - Developed resources for pedagogical training and curriculum support

8. **Research Assistant** — Winston-Salem, NC
 Wake Forest University, Department of Statistical Sciences — Jan 2023 – May 2024
 Mentor: Sarah Lotspeich, Ph.D.

 - Developed methods for error-prone data
 - Contributed to ongoing lab projects and manuscripts

7. **Data Science Intern** — Winston-Salem, NC
 Hanesbrands — June 2023 – August 2023

 - Designed and implemented a scalable predictive sales model prototype
 - Identified a multi-million dollar sales growth opportunity for a major account

6. **Academic Tutor** Huntington, NY
Self-Employed January 2012 – Present

- Supported students with mathematics and statistics coursework
- Prepared students for standardized exams

5. **Summer Research Intern** Virtual
Central Washington University, Department of Mathematics June 2021 – August 2021
Mentor: Sooie-Hoe Loke, Ph.D.

- Modeled a popular game show using R and Python
- Communicated findings to peers and mentors using Beamer presentations
- Attended workshops, talks, and lectures by field experts

4. **Summer Research Intern** Virtual
Carnegie Mellon University, Department of Statistics and Data Science June 2020 – August 2020
Mentors: Sam Ventura, Ph.D. and Ron Yurko, Ph.D.

- Worked on visualization and modeling projects in sports analytics using R
- Attended workshops, talks, and lectures by field experts

3. **Academic Tutor** Scranton, PA
University of Scranton, Center for Teaching and Learning Excellence March 2019 – May 2022

- Supported individual students with coursework in math, statistics, computing, logic
- Reinforced classroom instruction for small groups of students on a drop-in basis

2. **Financial Analyst** East Northport, NY
VentureBrandUSA LLC July 2019 – July 2021

- Developed spreadsheet templates to model investment values over time

1. **Research Intern** Brookville, NY
Long Island University, Department of Biology March 2017 – August 2017
Mentors: Scott Santagata, Ph.D. and Paul Paino

- Quantified and compared biodiversity indices across the Scotia and Weddell Seas

Honors and Awards

16. **SPAIG Award, American Statistical Association** 2025
Given annually to recognize outstanding collaborations among academe, industry, and government
organizations while recognizing key individual contributors

15. **Highly Commended Article, Significance Magazine** 2024
Designation from the annual Statistical Excellence Award for Early-Career Writing Competition

14. **Russell G. Hamilton Scholar, Vanderbilt University** 2024-2029

13. **Provost's Graduate Fellowship, Vanderbilt University** 2024-2029

12. **Graduate Student Award for Outstanding Scholarship, Wake Forest University** 2024
Awarded by the Department of Statistical Sciences for scholarship, ingenuity, and dedication

11. **Travel Award, Women in Statistics and Data Science Conference** 2023
Merit-based award for student or early professional conference attendees

10. **Gertrude M Cox Scholarship, American Statistical Association** 2023
Awarded for dedication to statistical inquiry, passion for mentoring, and extraordinary commitment
to scholarly excellence

9. **Teaching Assistantship, Wake Forest University** 2022 – 2024
   Full tuition grant and teaching stipend

8. **Provost Merit Scholarship, Wake Forest University** 2022 – 2024
   Merit-based graduate student award

7. **Outstanding Poster, Mathematical Association of America MathFest** 2022
   Awarded for excellent project presentation and poster design

6. **Excellence in Applied Mathematics Award, University of Scranton** 2022
   Merit-based department award

5. **Humanities Fellow, University of Scranton Slattery Center** 2021 – 2022
   Undergraduate humanities research grant

4. **Presidential Scholarship, University of Scranton** 2018 – 2022
   Merit-based full-tuition scholarship awarded for exemplary academic achievement

3. **Dean's List, University of Scranton** 2018 – 2022
   Distinction granted to full-time students with a GPA above 3.50

2. **Central Convergence REU Scholar** 2021
   Undergraduate research grant

1. **National Hispanic Scholar, Hispanic Scholarship Fund** 2018 – 2020
   Merit-based distinction and scholarship awarded to university students of Hispanic heritage

Peer-Reviewed Publications

1. S.C. Lotspeich, **A.E. Mullan**, L. D'Agostino McGowan, and S.A. Hepler, "Combining straight-line and map-based distances to investigate the connection between proximity to healthy foods and disease," *Statistics in Medicine*, vol. 44, no. 7, pp. e70054, 2025. doi:10.1002/sim.70054.

Submitted Manuscripts

1. **A.E. Mullan**, P.D.A. Nguyen, S.C. Lotspeich, "Linking Potentially Misclassified Healthy Food Access to Diabetes Prevalence," *Statistics and Public Policy* (under review), 2025+.

Presentations

15. **Guest Lecture:** Statistics in Your Own Backyard Nashville, TN
    Day of Discovery, Vanderbilt University May 2025

14. **Contributed Poster:** Visualizing Cost Effectiveness Analysis with Second-Generation New Orleans, LA
    Acceptability Curves - *ENAR Spring Meeting* March 2025

13. **Guest Lecture:** Statistical Ideas You Can Never Unsee Ithaca, NY
    PSYCH1130, Cornell University March 2025

12. **Invited Talk:** Misclassification Challenges in Quantifying the Relationship Scranton, PA
    Between Diabetes and Local Access to Healthy Food March 2025
    Department of Mathematics, University of Scranton

11. **Guest Lecture:** From Idea to Conclusion: A Statistical Perspective Nashville, TN
    School for Science and Mathematics at Vanderbilt February 2025

10. **Contributed Poster:** Adjusting for covariate misclassification to quantify the relationship between diabetes and local access to healthy food
Women in Statistics and Data Science Conference
Reston, VA
October 2024

9. **Invited Talk:** For Better or For Worse: The First Kiss Effect on Television Ratings
International Day of Women in Statistics and Data Science
Virtual
October 2024

8. **Guest Lecture:** Stats can be fun, I swear!
PSYCH1130, Cornell University
Virtual
September 2024

7. **Contributed Talk:** Adjusting for Measurement Error to Quantify the Relationship Between Diabetes and Local Access to Healthy Food - *ENAR Spring Meeting*
Baltimore, MD
March 2024

6. **Contributed Poster:** Rate This Interruption: Using Interrupted Time Series Techniques to Analyze Popular Television Couples and Episode Ratings
Women in Statistics and Data Science Conference
Bellevue, WA
October 2023

5. **Contributed Poster:** Music Feature Classification: Using Techniques of Machine Learning to Detect Genre - *Mathematical Association of America MathFest Conference*
Philadelphia, PA
August 2022

4. **Contributed Poster:** Deal or No Deal: Modeling a Game Show with Utility Theory and Machine Learning - *Joint Mathematics Meetings*
Virtual
April 2022

3. **Contributed Poster:** Deal or No Deal: Modeling a Game Show with Utility Theory and Machine Learning - *SACNAS NDiSTEM Conference*
Virtual
August 2021

2. **Featured Talk:** Deal or No Deal: Modeling a Game Show with Utility Theory and Machine Learning - *Mount Stuart Mathematics Seminar Series*
Virtual
August 2021

1. **Featured Talk:** A Puck Above the Rest: The Effects of New Data on 2020 NHL Draft Decisions
Carnegie Mellon Sports Analytics Conference
Virtual
October 2020

Panel Discussions

3. **Panelist:** Graduate Admissions Advice
Electronic Undergraduate Student Research Conference
Virtual
November 2024

2. **Moderator:** Statistical Storytelling: Insights Into Effective Presentation Strategies
Women in Statistics and Data Science Conference
Reston, VA
October 2024

1. **Moderator:** The Art of the Invite: Crafting Successful Invited Session Proposals
International Day of Women in Statistics and Data Science Conference
Virtual
October 2024

Software

4. **Author:** Stats can be fun, I swear! - Shiny App
https://ashley-mullan.shinyapps.io/lecture-app

3. **Author:** visegen - R Package
https://github.com/ashleymullan/visegen

2. **Contributor:** POSSUM - R Package
https://github.com/sarahlotspeich/possum

1. **Contributor:** ThemePark - R Package
https://github.com/MatthewBJane/ThemePark

Teaching

3. **Wake Forest University** Winston-Salem, NC
Teaching Assistant: STA111 - Elementary Probability and Statistics Aug 2022 – May 2023
Supervising Professor: Leo Cella, Ph.D.

   - Supported mathematics and statistics undergraduate students in introductory coursework

2. **University of Scranton** Scranton, PA
Teaching Assistant: INTD 290 - Leadership and Civic Responsibility May 2020 – Aug 2020
Supervising Professors: Teresa Grettano, Ph.D. and Stephen Whittaker, Ph.D.

   - Assisted with curriculum revision, facilitated weekly small group discussion, and oversaw student presentations

1. **University of Scranton** Scranton, PA
Sectional Assistant: Performance Music Aug 2018 – May 2022
Supervising Instructor: Cheryl Boga

   - Assisted with group strings lesson facilitation and corrected playing technique
   - Instructed small groups of choir members in aspects of selected choral literature

Professional Service and Outreach

Officer Positions and Committees
   - Communications Officer/First Year Liaison, Biostatistics Graduate Student Association, Vanderbilt University — 2025–
   - Founding Member, Mentorship Committee, ENAR — 2025–
   - Member, Program Committee, Caucus for Women in Statistics — 2025–
   - Steering Committee/Social Media Co-Chair, Council for Emerging and New Statisticians (CENS), ENAR — 2024–
   - Chair/Member, Social Media Committee, ENAR — 2023–
   - Member, Graduate Honor Council, Wake Forest University — 2022–2024
   - President, Pi Mu Epsilon Honor Society, University of Scranton — 2021–2022
   - Secretary, Phi Sigma Tau Honor Society, University of Scranton — 2021–2022
   - Secretary, Upsilon Pi Epsilon Honor Society, University of Scranton — 2021–2022
   - President, Mathematics Club, University of Scranton — 2018–2022
   - Vice President, HackScranton University of Scranton — 2019–2021

Volunteer Outreach
   - Judge, Undergraduate Statistics Project Competition — 2025
   - Mentor, Flash Mentoring, Caucus for Women in Statistics — 2024
   - Pen Pal, Letters to a Pre-Scientist — 2024–2025
   - Activity Lead, Florence Nightingale Day, Wake Forest University — 2024
   - Proctor, MathCounts, Wake Forest University — 2023
   - Dean's Ambassador, College of Arts and Sciences, University of Scranton — 2021–2022
   - Admission Ambassador, University of Scranton — 2019–2022

Conference Activities
   - Invited Session Organizer (Frequency)

- ∗ *ENAR Spring Meeting* (1), *Women in Statistics and Data Science* (1), *International Day of Women in Statistics and Data Science* (2)
  - – Session Chair (Frequency)
    - ∗ *Joint Statistical Meetings* (1), *International Day of Women in Statistics and Data Science* (2), *ENAR Spring Meeting* (1), *Women in Statistics and Data Science* (2)

SKILLS

- **Programming:** R (advanced), SQL (intermediate), Python (intermediate), LaTeX (intermediate), GitHub (intermediate), Shiny (intermediate), Java (intermediate), Cluster Computing (novice), Julia (novice), Power BI (novice), HTML (novice)

- **Applications:** Microsoft Suite (advanced), Google Suite (advanced), Bloomberg Terminal (novice)

- **Languages:** English (native), Spanish (intermediate written and oral proficiency)