Ashley E. Mullan

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EDUCATION

Vanderbilt University

Wake Forest University

Nashville, TN

Expected May 2029

Ph.D. in Biostatistics

Winston-Salem, NC

M.S. in Statistics, GPA: 4.00/4.00

Expected 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

June 2018

Advanced Regents Diploma

RESEARCH AND WORK EXPERIENCE

8. Lead Teaching Assistant

Winston-Salem, NC Mar 2023 – Present

Wake Forest University, Departments of Statistical Sciences and Mathematics Mentor: Lynne Yengulalp, Ph.D.

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

7. Research Assistant

Winston-Salem, NC Jan 2023 – Present

Wake Forest University, Department of Statistical Sciences

Mentor: Sarah Lotspeich, Ph.D.

• Developed methods for error-prone data

• Contributed to ongoing lab projects and manuscripts

6. Data Science Intern

Hanesbrands

Winston-Salem, NC 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

5. Academic Tutor

Self-Employed

Huntington, NY January 2012 – Present

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

4. 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

3. 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

2. 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

1. Financial Analyst

East Northport, NY

VentureBrandUSA LLC

July 2019 – July 2021

• Developed spreadsheet templates to model investment values over time

Honors and Awards

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 Awarded by the Department of Statistical Sciences for scholarship, ingenuity, and dedication	2024
11.	Travel Award, Women in Statistics and Data Science Conference Merit-based award for student or early professional conference attendees	2023
10.	Gertrude M Cox Scholarship Awarded by the American Statistical Association to an early-career graduate student	2023
9.	Teaching Assistantship, Wake Forest University Full tuition grant and teaching stipend	2022 - 2024
8.	Provost Merit Scholarship, Wake Forest University Merit-based graduate student award	2022 - 2024
7.	Outstanding Poster, Mathematical Association of America MathFest Awarded for excellent project presentation and poster design	2022
6.	Excellence in Applied Mathematics Award, University of Scranton Merit-based department award	2022
5.	Humanities Fellow, University of Scranton Slattery Center Undergraduate humanities research grant	2021 - 2022

4. Presidential Scholarship, University of Scranton Merit-based full-tuition scholarship awarded for exemplary academic achievement	2018 - 2022
3. Dean's List, University of Scranton Distinction granted to full-time students with a GPA above 3.50	2018 - 2022
2. Central Convergence REU Scholar Undergraduate research grant	2021
1. National Hispanic Scholar, Hispanic Scholarship Fund Merit-based distinction and scholarship awarded to university students of Hispanic heritage	2018 - 2020
Presentations	
8. Invited Talk: Adjusting for Misclassification to Quantify the Relationship Between Diabetes and Local Access to Healthy Food - Invited Talk, University of Scranton	Scranton, PA March 2025
7. Contributed Talk: Adjusting for Measurement Error to Quantify the Relationship Between Diabetes and Local Access to Healthy Food - <i>ENAR Spring Meeting</i>	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 - <i>Mathematical Association of America MathFest Conference</i>	Philadelphia, PA August 2022
4. Contributed Poster: Deal or No Deal: Modeling a Game Show with Utility Theory and Machine Learning - <i>Joint Mathematics Meetings</i>	Virtual April 2022
3. Contributed Poster: Deal or No Deal: Modeling a Game Show with Utility Theory and Machine Learning - <i>SACNAS NDiSTEM Conference</i>	Virtual August 2021
2. Featured Talk: Deal or No Deal: Modeling a Game Show with Utility Theory and Machine Learning - <i>Mount Stuart Mathematics Seminar Series</i>	Virtual August 2021
1. Featured Talk: A Puck Above the Rest: The Effects of New Data on 2020 NHL Draft Decident Carnegie Mellon Sports Analytics Conference	sions Virtual October 2020
Additional Projects	
4. Point Made: Exploring Factors that Contribute to Team Success Carnegie Mellon Sports Analytics Camp Mentors: Ron Yurko, Ph.D. and Nick Citrone, M.S. Coauthor: Alana Willis	2020
• Modeled NBA season results with regression techniques	
3. Batter Up! Visualizing the 2019 MLB Season Carnegie Mellon Sports Analytics Camp Mentors: Ron Yurko, Ph.D. and Nick Citrone, M.S. Coauthor: Zhiwei Xiao	2020
\bullet Visualized results for top hitters of the 2019 baseball season in R	
2. An Analysis of SAT Results for New York City Students of the Class of 2010 The University of Scranton, Introduction to Data Science Mentor: Jason Graham, Ph.D.	2019

• Compared mean SAT scores across the population of New York City high schools

1. Biodiversity in Bryozoan Garden Communities of the Antarctic Marine Shelf

2017

Long Island University, Department of Biology Mentors: Scott Santagata, Ph.D. and Paul Paino

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

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 Memberships

Committees

- International Biometric Society (IBS), Eastern North America Region (ENAR)
 - * Social Media Committee

2023 - 2024

Officer Roles

- President
 - * Pi Mu Epsilon, University of Scranton Chapter

2021-2022

- Secretary
 - * Phi Sigma Tau, University of Scranton Chapter * Upsilon Pi Epsilon, University of Scranton Chapter

2021-2022

2021-2022

Memberships

American Statistical Association	2023-
- Caucus for Women in Statistics	2023-
- International Biometric Society, Eastern North American Region (ENAR)	2023-
 Alpha Sigma Nu - National Jesuit Honor Society 	2022-
 Pi Mu Epsilon - National Honor Society in Mathematics 	2021-
– Upsilon Pi Epsilon - International Honor Society in Computing	2021-
- Phi Sigma Tau - International Honor Society in Philosophy	2021-

Conference Activities

- Invited Session Organizer
 - * "Course Correcting for Coarsened Data"

 Women in Statistics and Data Science, Bellevue, WA

Oct 2023

- Session Chair (Frequency)
 - * ENAR Spring Meeting (1), Women in Statistics and Data Science (1)

LEADERSHIP

Wake Forest University

Lead Teaching Assistant - Departments of Statistical Sciences and Mathematics

Mar 2023 - May 2024

- Facilitated mentorship opportunities for new graduate students

University of Scranton

College of Arts and Sciences Dean's Ambassador

Dec 2021 - May 2022

- Presented student concerns to administrators

Admissions Ambassador

Oct 2019 – May 2022

- Panelist for College of Arts and Sciences admission events
- Panelist for prospective Special Jesuit Liberal Arts Honors Program student webinar
- Mathematics student ambassador at in-person and virtual information sessions
- Panelist for virtual information sessions for the Performance Music Department

Mathematics Club (President)

Aug 2018 – May 2022

- Planned events for students in the department
- Organized opportunities for new students to connect with peer mentors

HackScranton Club (Vice President)

Aug 2019 – Dec 2021

- Facilitated club meetings and activities
- Maintained log of club service and social media presence

Royal Investment Group

Aug 2018 – May 2021

Aug 2019 – May 2020

- Promoted computational literacy among club members
- Created visualizations of changes in portfolio holdings in R

Club Council

- Updated club members on changes to university policy for student organizations
- Participated in leadership training sessions

LANGUAGES

English

Native Language

Spanish

Intermediate Oral and Written Proficiency

SELECTED SKILLS

Programming and Technical

R (advanced), SQL (intermediate), Python (intermediate), LaTeX (intermediate), GitHub (intermediate), Java (intermediate), Julia (novice), Shiny (novice), Power BI (novice), Cluster Computing (novice)

Applications

Microsoft Suite (advanced), Google Suite (advanced), Bloomberg Terminal (novice)

Other

Data Visualization, Statistical Modeling, Creativity