ABIGAIL MABE

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EDUCATION

Bachelor of Science in Statistics and Analytics, Bachelor of Arts in Biology, Minor in Data Science | University of North Carolina at Chapel Hill

Expected Graduation Date: May 2025

EXPERIENCE

Undergraduate Student Analyst | Sports Analysis Intelligence Laboratory, UNC | Chapel Hill, NC
2023 – Present

Work with UNC's athletic department to assist in various analytics projects, including gathering data and presenting findings to coaches. Project lead in developing visualizations for the UNC Swim Team.

Benefit-Risk Programming | Global
May 2023 – Present

A global effort across multiple pharmaceutical companies to create publicly available code on a GitHub site for benefit-risk visualizations aimed at analyzing investigational treatments; this is an independent project with employees from various biotech and pharmaceutical companies.

Quantitative Benefit-Risk Intern | UCB Biosciences | Raleigh, NC
May 2024 – August 2024

Worked to refactor code for visualizations that promote decision-making for medical stakeholders. Developed a user-manual for corresponding visualizations to describe their utility in benefit-risk analysis of investigational treatments. Internally published refactored code for the availability of all employees at UCB Biosciences. Presented results to the Biometrics and Quantitative Sciences leadership team of UCB Biosciences.

Participant in Pearl Hacks | UNC Chapel Hill | Chapel Hill, NC
February 2024

Collaborated with a team to build a prototype of an app that tracks index funds and other investment tools over time. Webscraped index fund data utilizing R and built a mathematical model to predict future funds based on various user options.

Quantitative Benefit-Risk Intern | UCB Biosciences | Raleigh, NC
May 2023 – August 2023

Formulated code to produce a new visualization to aid in benefit-risk analysis, called the Cumulative Excess plot. Incorporated Cumulative Excess plot in a Benefit-Risk dashboard utilizing R-Shiny. Presented results to various managers across UCB Biosciences.

Participant in ASA DataFest at Duke | Duke University | Durham, NC
March 2023

Performed analysis on pro-bono data. Collaborated with a team to create a mechanism for a given pro-bono website that automatically sorts cases to Lawyers based on their recorded specialty. Utilized R to create the mechanism and corresponding visualizations to present to judges.

RESEARCH

Undergraduate Honors Thesis | UNC Chapel Hill | Advisor: Dr. Richard Smith | Chapel Hill, NC
January 2024 – December 2024

Worked under Dr. Richard Smith to observe differences in the trend of marathon and half marathon records due to "super shoes." Utilized Extreme Value Theory and Bayesian analysis in conjunction with web-scraped data to estimate the effect of these new technologies in the running field. Defended my thesis and received highest honors.

Swim App Development | Sports Analysis Intelligence Laboratory, UNC | Chapel Hill, NC
April 2024 – Present

Creating a dynamic app utilizing hand-gathered data from observing race film from top NCAA athletes. Aim is to assist coaches in comparing their athletes' current statistics with the top athletes they compete against. Will provide a way to easily visualize and pinpoint areas for improvement.

Assistant Project Analyst | Boston Athletic Association
April 2023 – July 2024

Assisted on projects with the Boston Athletic Association, including analysis on 2026 qualifying times. Created visualizations and presentations to relay information the analysis team discovered.

PRESENTATIONS

Assessing Vaccine Efficacy on Influenza Spread in Various Communities using SVIR Models | Celebration of Undergraduate Research | UNC Chapel Hill
April 2024

Presented a poster assessing vaccine efficacy on Influenza spread in rural and urban communities using SVIR models. Modeled the spread of the disease with Mathematica and presented findings at the Celebration of Undergraduate Research at UNC Chapel Hill.

Guest Lecture | Machine Learning: Ethics and Society | UNC Chapel Hill
November 2024

Lectured to a Machine Learning class at UNC Chapel Hill about the application of data privacy in industry.

COMMUNITY INVOLVEMENT

- Member of Alpha Phi Omega (UNC Chapel Hill)
- 100+ hours of community service (UNC Chapel Hill)
- Member of Tri Beta (UNC Chapel Hill)

SKILLS

- Coding in R, R-Shiny
- Coding in Matlab

- Coding in Python
- Coding in Mathematica
- Experience utilizing AGILE methodology
- Proficiency in utilizing GitHub
- Communication and Collaboration
- Data Visualization
- Portraying results in written form
- Fluency in using Azure DevOps