

# Malika Top

mt3775@cumc.columbia.edu • (346) 289-8302 • Permanent: Houston, TX • Current: New York, NY

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## EDUCATION

**Columbia University Mailman School of Public Health** | New York, NY

*Master of Science, Biostatistics/Theory and Methods Track*

Expected May 2026

**Wellesley College** | Wellesley, MA

May 2024

*Bachelor of Arts in Data Science; Concentration in Biology* | **GPA:** 3.6/4.0, Cum Laude

Relevant Coursework: Statistical Inference, Causal Inference, Probability, Data Structures, Data Analytics and

Visualization, Fundamental Algorithms, Combinatorics and Graph Theory, Linear Algebra, Genomics and Bioinformatics

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## HONORS

Posse Foundation Full-Tuition Leadership Scholarship

August 2020- May 2024

Madeleine Korbel Alsbright Institute for Global Affairs Fellow

January 2023

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## RESEARCH

**Summer Institute in Biostatistics and Data Science @ Columbia University Mailman School of Public Health,**

*Program Participant* | New York City, NY

May 2023-August 2023

- Applied novel variations of Bayesian Kernel Machine Regression (BKMR) model in R on a cohort study in Bangladesh to address challenges of confounding adjustment and identify potential joint effects of correlated environmental mixtures on child neurodevelopment
- Courses completed: Introduction to Biostatistics, Introduction to Data Science

**Wellesley College Biller Lab, Undergraduate Student Researcher** | Wellesley, MA

June 2022-August 2022

- Characterized non-canonical mobile genetic elements and identified genomic contexts for DNA invertases in *Prochlorococcus* by analyzing long-read sequencing data of vesicle-associated DNA collected from the Pacific Ocean to examine role of horizontal gene transfer and extracellular vesicles in bacterial evolution

**Human Computer Interaction Lab, Undergraduate Student Researcher** | Wellesley, MA

June 2021-January 2022

- Iterated on the design of chatbot project named Mochi and corresponding user-data reflection visualization website by writing code for 4 additional features in Javascript and Google Dialogflow to deploy a 2-week study to evaluate remote-workers' experiences with chatbots
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## RELEVANT EXPERIENCE

**Quantitative Analysis Institute, Wellesley College; Teaching Assistant** | Wellesley, MA

June 2023-August 2024

- Led eight 90-minute laboratory sessions and four 90-minute office hour sessions over the summer for groups of up to 6 students weekly to build students' understanding of statistics fundamentals and data science skills
- Graded 31 assignments weekly and created novel code in R to help summarize student understanding and participation
- Collaborated with professor and fellow teaching assistants to evaluate students' performance and discuss best practices for gaps in learning across students

**Office of Residential Life, Wellesley College; Resident Assistant** | Wellesley, MA

August 2021-December 2022

- Supervise and care for 30 residents ages 18-22 by hosting and developing programming for 12 monthly events focusing on community development, health and safety, social justice, life skills, and providing students referrals
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## SKILLS

- **Languages:** Khmer (Fluent, Native Speaker), Spanish (Fluent)
  - **Programming Languages:** R, mySQL, Python, Java, HTML/CSS/Javascript
  - **Packages and Frameworks:** pandas, NumPY, Scikit-learn, Matplotlib, Seaborn, ggplot2, Flask
  - **Tools:** Jupyter, RStudio, Microsoft Office, Google Suite
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## LEADERSHIP

- **Wellesley College Science Center, Stockroom Student Assistant**

September 2020-May 2024

- **Schneider Board of Governors, Community & Legacy Committee Chair**

September 2021-May 2024