

EDUCATION

University of Oxford <ul style="list-style-type: none">• MSc in Statistical Science	Oxford, England	Oct 2020 – Sep 2021
Drew University <ul style="list-style-type: none">• B.Sc. in Physics, Mathematics minor (GPA: 4.000 / 4.000)• GRE: 169/170 Quantitative, 165/170 Verbal, 5/6 Analytical Writing	Madison, NJ	Aug 2016 – May 2020
The Juilliard School <ul style="list-style-type: none">• Cello Program	New York, NY	Aug 2015 – May 2016

RESEARCH EXPERIENCE

Astrobiology Statistics Researcher <ul style="list-style-type: none">• Statistical analysis and coding for astrobiological data in Octave and MATLAB with mentor Diana Gentry.	NASA Ames Research Center	Jun 2020 – Aug 2020
Eye-tracking Researcher <ul style="list-style-type: none">• Obtained new results about how the first and last two letters of a solution word are particularly informative in solving a word puzzle (anagram) by designing and running a highly stimulus-manipulated experiment on 29 subjects and applying statistical tests. Cleaned and prepared over 1.8 million rows of raw coordinate data with Pandas and NumPy. Presented at the University of Scranton Brain and Behavior Conference in March 2020. Poster can be viewed on jessebmurray.com.	Drew University	May 2019 – Present
Statistics Researcher <ul style="list-style-type: none">• Created a population model of polygenic inheritance derived from the linear regression and normality of polygenic traits. $R^2=0.81$ with Galton's height data and $R^2=0.96$ with US family income data. The calculus involved model was simulated in python. Editing a paper for journal submission. Paper can be viewed on jessebmurray.com.	Drew University	Sep 2019 – Mar 2020

SKILLS

- Numerous data science and modeling projects (jessemurray.com)
- Expertise in Python and its data science libraries: NumPy, Pandas, Scikit-learn, SciPy, Matplotlib, Seaborn
- Fluency in R, MATLAB, Octave, LaTeX, some experience with C, Julia, HTML, and SQL
- Experienced with calculus-based statistics, probability, multivariable calculus, linear algebra, differential equations
- Cello, piano, music theory, perfect pitch composition

ADDITIONAL EXPERIENCE

University Tutor <ul style="list-style-type: none">• Tutored undergraduate students in physics I and II, calculus I, II and III, pre-calculus, statistics, astronomy, biology, chemistry, organic chemistry. Led drop-ins for math-related courses, explained problems to large groups of students.	Drew University	Jan 2017 – Jan 2020
President of Math Club <ul style="list-style-type: none">• Completely revamped the club, put up posters around the school of intriguing math problems and began weekly meetings to solve those problems, lead discussions, and present projects. Created a professor talk series in which quantitative professors give math-related lectures.	Drew University	Jan 2019 – Jan 2020
Research and Teaching Assistant <ul style="list-style-type: none">• Worked with students at the New Jersey Governor's School in the Sciences to complete a project about implementing machine learning with iRobot hardware for human detection. Graded and tutored students in a special relativity class.	Drew University	Jul 2019 – Aug 2019

AWARDS, SCHOLARSHIPS, HONORS

Marshall C. Harrington Prize in Physics and Astronomy: Awarded in Spring 2020 from the Drew University Physics Department (for completion of an outstanding research project). **Pi Mu Epsilon:** Inducted into Mathematics honor society in Spring 2020. **Arnold S. Boxer Memorial Prize in Physics:** Awarded from the Drew University Physics Department in Spring 2019. **Sigma Pi Sigma:** Inducted into Physics honor society in Spring 2019. **Phi Beta Kappa:** Inducted in Spring 2018. **Weddell Family Scholarship:** Awarded from the Drew University Physics Department in Spring 2018. **John F. Ollom Prize in Physics:** Awarded from the Drew University Physics Department in Spring 2017. **Dean's Transfer Scholarship:** Awarded from Drew University in Fall 2016.