

Ellen Graham

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Education

- 2017–Present **Bachelor of Arts**, *Macalester College*, St. Paul, MN, 4.0.
Applied mathematics and statistics and computer science double major.
Relevant Coursework:
- Statistics: Introduction to Statistical Modeling, Introduction to Data Science, Probability, Mathematical Statistics, Markov Chains and Processes
 - Computation: Object Oriented Programming, Software Design and Development, Computational Linear Algebra
 - Mathematics: Applied Multivariable Calculus III, Linear Algebra, Discrete Mathematics, Linear Mathematics II
 - Geography: Introduction to Sustainable Development, Medical Geography
- 2013–2017 **High School Degree**, *Olympia High School*, Olympia, WA, 4.0.

Experience

Vocational

- May 2019–July 2019 **Research Assistant**, *Macalester College*, St. Paul, MN.
Worked with a professor and a small team of other students to build tools for analyzing longitudinal categorical data.
Work included:
- Researching methods and algorithms for clustering longitudinal categorical data
 - Finding and using existing software for clustering longitudinal categorical data
 - Building visualizations to convey takeaways from analysis outcomes
 - Building a Shiny app using R to streamline analysis of methods and data
 - Analyzing datasets on health and sleep using our Shiny app
 - Presenting work to other research teams
 - Collaborating both in person and remotely with a small team
- Sept. 2018–May 2019 **Preceptor**, *Macalester College*, St. Paul, MN.
Assist a professor in running the Introduction to Data Science course at Macalester College.
Work included:
- Providing coding assistance during class
 - Helping to teach concepts such as working with APIs and geospatial visualization
 - Holding office hours to help students with topics and projects
 - Grading coursework

- Sept. 2018–May 2019 **Office Assistant**, *Macalester College*, St. Paul, MN.
Performed administrative tasks for the Mathematics, Statistics, and Computer Science Department at Macalester College such as running events, proctoring tests, and designing posters among others.
- June 2018–Aug. 2018 **Instructor**, *Exploration Summer Programs*, Wellesley, MA.
Worked as an instructor and camp counselor at the EXPLO at Wellesley summer program for rising 8th and 9th grade students.
Work Included:
- Teaching introductory programming to students from a wide variety of backgrounds
 - Working with full time teachers to build the curriculum for my course
 - Acting as a resident advisor for 20 overnight students
 - Working alone or in small teams to design and run activities for students
 - Performing general tasks that allow a 500 student summer camp to run
 - Working approximately 70 hour weeks to ensure that students had a safe and enjoyable experience
- Sept. 2017–May 2018 **Student Custodian**, *Macalester College*, St. Paul, MN.
Cleaned classrooms and dorm spaces on the Macalester College campus with small teams of other students and with professional custodians.
- Volunteering**
- Nov. 2015–April 2017 **Robotics Outreach Volunteer**, *Olympia High School*, Olympia, WA.
Worked with community organizations to increase access and awareness of robotics programs for youth in the Olympia area.
Work included:
- Demonstrating how to build and operate robots at local museums and businesses
 - Teaching children and parents about robotics programs for youth
 - Organizing a small group of other volunteers

Computer skills

R/RStudio, R Shiny, Git/GitHub, Python, Flask, Java, JavaScript, React Native, SQL, Postgres, Excel, LaTeX, Markdown