

# Emilee Gootee

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## EDUCATION

### **The University of Michigan-Dearborn**

*Master of Science (with high distinction)*

Major: Applied and Computational Mathematics

Dearborn, MI

Graduation Date: December 2024

GPA: 4.00

*Bachelor of Science (with high distinction)*

Major: Mathematics

Minor: Applied Statistics

Graduation Date: December 2023

GPA: 3.96

## WORK EXPERIENCE

### **University of Michigan-Dearborn Mathematics & Statistics Department**

Dearborn, MI

*Mathematics and Statistics Tutor*

09/21-04/24

- Reviewed class material with students by discussing texts, working solutions to problems, or reviewing worksheets and other assignments
- Assisted at many different levels of mathematics and statistics
- Proctored exams, tests, and quizzes for academic dishonesty

*Girls Get Math Student Assistant*

07/22, 08/23, & 08/24

- Assisted in a mathematics outreach program for high school girls on the UM-D campus
- Prepared materials and activities for the one-week program, oversaw the students, and guided them with their tasks
- Held panels to assist students in understanding college as well as a presentation on previous research performed to understand lessons and real-life applications of mathematics further

*Mathematics and Statistics Student Ambassador*

09/23-12/24

- Organized events, outreach opportunities, and created visuals for social media
- Established connections with both prospective and current students

*Help Yourself Academy (HYA) Instructor*

01/24-12/24

- Assisted elementary school students with specially curated math homework and worksheets
- Built math confidence in struggling students
- Maintained a strong relationship with the teachers and administrators at the school

*Math Corps Instructor*

06/24-08/24

- Developed math-based lesson plans for rising seventh and ninth graders
- Formulated original creative mathematical lesson plans to demonstrate how mathematics is used outside of a classroom as well as more imaginative uses of math
- Coordinated grades to analyze the progress of the students and kept records

*Calculus III Teaching Assistant and Grader*

09/24-12/24

- Graded all in-class quizzes and recorded them in the grade book
- Lead multiple review sessions to help students prepare for exams
- Answered emails from students who had any questions or concerns

### **Children's Orchard**

Brownstown, MI

*Sales Associate*

06/21 – 06/24

- Trained new employees to promote consistency in policies and procedures as well as act as a role model
- With attention to detail, organized merchandise and maintained displays to encourage sales
- Recorded and reconciled daily transactions to promote revenue generation and customer satisfaction

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## SKILLS

**Computer Skills:** Proficient in Microsoft Office Suite, Google Suite, RStudio, MatLab, SQL, C++, and Latex

**Personal Skills:** Reliable and punctual, written and oral communication skills, friendly and personable with an outgoing personality

## RESEARCH

### Youngstown State University

05/22-07/22

- Conducted research as part of the BUMP program working in a handpicked group of four students to study Google's PageRank algorithm by utilizing advanced linear algebra and applying it to an example of ranking Olympic snowboarders

### University of Michigan-Dearborn

01/23-04/23

- Investigated PageRank by implementing it to rank which streets would be best patrolled by Detroit police to optimize response time on a small set of real Detroit police data

### University of Michigan-Dearborn

05/23-09/23

- Invited by Professor Keshav Pokhrel to work alongside him, another mathematics/statistics student, and a group of student chemists with their advisor in utilizing RStudio to conduct research on the RNA structures of yeast genomes

### University of Michigan-Dearborn

09/24-12/24

- Conducted research under Professor Aditya Viswanathan to study inverse problems and deconvolution to deblur data in the second dimension through a variety of models using MatLab to conduct calculations as part of masters dissertation

## PRESENTATIONS

- Presented at the 2022 Society for Industrial and Applied Mathematics (SIAM) Great Lakes Section Annual Meeting
- Presented at the University of Michigan-Dearborn Math & Stats Department Colloquium in 2022
- Performed and presented research on Mathematical Modeling and optimizing profits

## HONORS/AWARDS

- Stellantis Student Awards recipient in 2024
- Dean's List for Fall and Winter semesters from Fall 2020 - Fall 2023
- Award of Excellence in Mathematics for 2023
- Academic Excellence in Applied and Computational Mathematics for 2024
- High Achievements as a Woman in Mathematics and Statistics in Honor of Julia Robinson for 2022 - 2024

## VOLUNTEER EXPERIENCE

- Presented for the Carlson High School AP Calculus class to talk about college in 2022. I returned to my alma mater to discuss careers in mathematics, expectations for college, and some of the events that colleges can offer
- Partook in the University of Michigan-Dearborn's ad campaign in 2024. Participated in an interview as a graduate student to discuss my experiences and what I enjoyed during university