Christian Lentz

Saint Paul, MN 55105 | 262-488-2205
https://christianlentz.github.io/
clentz@macalester.edu
LinkedIn

Education

Macalester College | St. Paul, Minnesota | 09/2020 - Current

- Bachelor of Arts - Mathematics And Computer Science
- GPA: 3.96
- Advisors: Lori Ziegelmeier, Susan Fox

Oxford University | Oxford, England, United Kingdom | 01/2023 - 06/2023

- Visiting Student in Mathematics at St. Catherine's College
- Relevant Courses: Real Analysis, Elementary Number Theory, Groups and Group Actions

University of Wisconsin | Madison, Wisconsin | 06/2022 - 08/2022

- Visiting Student in Mathematics
- Relevant Courses: Combinatorics, Techniques in Ordinary Differential Equations

Relevant Experience

Undergraduate Research Assistant | 05/2023 - 07/2023
Macalester College - St. Paul, Minnesota

- Advisors: Lori Ziegelmeier (Macalester College), Gregory Henselman-Petrusek (Oxford University, Pacific Northwest National Laboratory)
- Research in Algebraic Topology / Topological Data Analysis
- Developed an algorithm for computation of persistent relative homology using recently developed matrix factorization techniques

QA Engineer - Intern | 06/2022 - 01/2023
Maverick Software Consulting / TravelNet Solutions - St. Paul, Minnesota

- Manual and automated software testing
- Reproduction and documentation of bugs/test cases in large software projects
- Contributed to automated test framework; JavaScript, Playwright, CSS
- Use of Postman API to send API requests for manual testing
- Experience with agile development / scrum teams

- Reference: Tracy Olnhausen, Senior Direct of Quality - tolnhausen@tnsinc.com

Teaching Assistant | 02/2022 - 01/2023 and 09/2023 - 12/2023
Macalester College MSCS Department - St. Paul, MN

- Worked with professors and students to facilitate learning for undergraduate students
- Attended lectures, graded problem sets, held office hours twice weekly
- Courses: Linear Algebra, Intro to Statistical Modeling, Computational Geometry

Talks and Presentations

**** denotes and upcoming event**

- *An algorithmic approach for persistent relative homology using matrix factorization techniques,* **2023 Fall Meeting of the Mathematical Association of America, North Central Section,** University of Minnesota-Duluth, September 2023
- *An algorithmic approach for persistent relative homology using matrix factorization techniques,* **Macalester College Summer Showcase,** St. Paul, MN, October 2023
- ***A computational approach for persistent relative homology*, **AIM-AMS Special Session on Applied Topology Beyond Persistence Diagrams, 2024 Joint Mathematics Meetings,** San Francisco, CA, January 2024
- ***A computational approach for persistent relative homology*, **PME Undergraduate Student Poster Session, 2024 Joint Mathematics Meetings,** San Francisco, CA, January 2024

Languages

Proficient: Java, Python, JavaScript, RStudio, C
Intermediate: Mathematica, Rust, CSS, HTML, NetLogo, Spanish
Frameworks / SDKs: Playwright, Google Firebase