

Ben Rosenberg

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EDUCATION

- **Hamline University** Saint Paul, MN
Bachelor of Science - Computational Data Science, Minor in Mathematics August 2022 - Present
- **Minneapolis College** Minneapolis, MN
Transfer Curriculum - Mathematics August 2021 - July 2022

PROFESSIONAL EXPERIENCE

- **Hamline Oracle** Saint Paul, MN
Managing Editor May 2023 - Present
Data Journalist & Story Editor August 2022 - May 2023
 - **Project Management:** Organized and co-led a team of 30 in preparing timely, diverse news coverage.
 - **Automation:** Wrote and maintained a program which integrates our Google Docs writing and editing workflow with our InDesign layout workflow
 - **Data Accessibility:** Maintained transparency by visualizing the University's financial, COVID, and other administrative data only available through personal request or API calls
 - **Tools & User Interfaces:** Developed browser-based tools to communicate key information to the readers and fellow journalists as well as internal tools for tracking staff work and payment
 - **Writing & Copy Editing:** Produced professional, published writing as both an individual and a member of a closely collaborative team
- **Magers & Quinn Booksellers** Minneapolis, MN
Online Sales Coordinator & Customer Service April 2021 - August 2023
 - **Automation:** Identified and resolved data-entry inefficiencies with JavaScript-powered tools
 - **Inventory Systems:** Developed a new process to significantly improve the accuracy and speed of tracking store inventory
 - **Logistics:** Coordinated international and domestic shipping of high-value books including continual optimization of security, speed, and VAT
 - **Customer Service:** Provided consistent, friendly service to a high volume of customer inquiries ranging from technical difficulties to book recommendations

SCHOLARSHIPS

- William R. Peterson Prize in Journalism - May 2023
- Eliza A. Drew Prize in Music Composition - May 2023
- Hamline Talent Scholarships for Music and Science - August 2022
- Minneapolis College Foundation STEM Scholarship - September 2021

RESEARCH & PROJECTS

- **Research on mathematical models to predict the motion of swarming locusts:** Applied multiple statistical analyses and developed a novel filtering method to evaluate existing models against a dataset tracking 20,000 locust trajectories. Funded by Hamline University. Tech: R, Git, Python, C++
- **Markov chain-based generative audio processing:** A Teensy-embedded program for creating novel musical output from limited inputs. Tech: Python, C++
- **"M&M Sorter":** A binary audio classifier with a browser-based GUI. It accepts any audio input but was strictly trained to distinguish between the music of Eminem and Michael McDonald. Tech: JavaScript/P5.js, R, Python, Plotly
- **Browser-based simulation of Jane Jacobs' "Eyes on the Street":** An interactive tool for understanding the interplay of population and neighborhood safety described in *The Death and Life of Great American Cities*

COMPUTATIONAL SKILLS

- **Languages:** Python, R, SQL, JavaScript, HTML, CSS, C++, Java
- **Frameworks:** D3.js, Tidyverse, Cython, Scikit, PyTorch, TensorFlow, Keras, Pandas, Plotly, Shiny, SuperCollider
- **Tools:** Git, Tableau, Node.js, Google Colab, p5.js, Processing, Microsoft Office, Google Workspace, Docker
- **Platforms:** macOS, Windows, Arduino, Raspberry Pi, Google Colab, Google Sites

VOLUNTEER EXPERIENCE

- **Mathematics Tutor** Minneapolis, MN
Leading online and in-person lessons for students in high school and college mathematics *August 2018 - Present*
- **Copy Editing** Various / Remote
Helping peers and students prepare formal writing for school, applications, or publication *August 2016 - Present*

PERSONAL EXPERIENCE & INTERESTS

- **Musical Composition & Performance** Various / Remote
Writing, performing, and recording original music with groups large and small *2013-Present*
- **Audio Software Development** Various / Remote
Developing original software for generating, processing, and organizing audio in digital formats *2019-Present*

OTHER WORK EXPERIENCE

- **La Cuchara** Baltimore, MD
Support Staff *August 2018 - March 2020*
 - **Customer Service:** Provided a very high quality of service to a high volume of customers
 - **Event Planning:** Helped to coordinate, prepare, and perform off-site events
 - **Transparency:** Improved transparency of a tip pooling system through data visualization
- **City Cafe** Baltimore, MD
Support Staff *January 2018 - July 2018*
 - **Organizing & Planning:** Maintained the organization and fluency of service in a busy restaurant
- **Greenlake Ale House** Seattle, WA
Server *March 2017 - December 2017*
 - **Customer Service:** Provided expedient, personalized service to many regular customers