

Ben Rosenberg

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EDUCATION

- **Hamline University** Saint Paul, MN
Bachelor of Science - Computational Data Science, Minor in Mathematics August 2022 - May 2024
Honors: *summa cum laude*
- **Minneapolis College** Minneapolis, MN
Transfer Curriculum - Mathematics August 2021 - July 2022

PROFESSIONAL EXPERIENCE

- **Hamline Oracle** Saint Paul, MN
Managing Editor May 2023 - May 2024
Data Journalist & Story Editor August 2022 - May 2023
 - **Project Management:** Organized and co-led a team of 30 in preparing timely, thoughtful news coverage for a diverse readership
 - **Data Accessibility:** Encouraged transparency by visualizing the University's financial, COVID, and other administrative data only available through personal request or API calls
 - **Writing & Copy Editing:** Produced professional, published writing as both an individual and a member of a closely collaborative team
 - **Automation:** Wrote and maintained software which integrates a Google Docs writing and editing workflow with an InDesign layout workflow
 - **Payroll Administration:** Maintained records, prepared, and delivered monthly payroll for a staff of 30
- **Hamline University** Saint Paul, MN
Mathematics Tutor January 2023 - May 2024
 - **Flexibility:** Covered varying tutoring responsibilities for three separate classes: Statistics, Business Analytics, and Elements of Statistical Learning
 - **Lesson Planning:** Prepared lessons to aid specific students with statistical topics ranging from pivot tables to neural networks
- **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

RESEARCH & PROJECTS

- **Research on mathematical models to predict the motion of swarming locusts:** Applied multiple statistical analyses and developed a novel filtering algorithm to evaluate existing models against a dataset tracking nearly 20,000 locust trajectories. Presented at the National Conference on Undergraduate Research (NCUR) in April 2024. Funded by Hamline University. Tech: R, Python, C++
- **Markov chain-based generative audio processing:** An 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 rapper Eminem and singer Michael McDonald. Tech: JavaScript/P5.js, R, Python, Plotly

COMPUTATIONAL SKILLS

- **Languages:** Python, R, SQL, JavaScript, HTML, CSS, C++, Java
- **Libraries & Runtimes:** Plotly, Shiny, Node.js, D3.js, Scikit, PyTorch, TensorFlow, Keras, Cython
- **Software:** Tableau, Microsoft Office, Google Workspace, RStudio, MySQL, PostgreSQL
- **Systems:** Git, GitHub, Google Cloud, Docker, Unix, Windows, Google Colab, Google Sites, Google Analytics
- **Methods:** ETL, Data Mining, Supervised and Unsupervised Machine Learning, Neural Networks, Regression, Classification

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

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