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
                                                                                                 August 2022 - Present

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 coverage on diverse issues
- **Automation**: Wrote and maintained a program which integrates our Google Docs writing workflow with our InDesign layout workflow
- **Data Accessibility**: Maintained transparency by visualizing the school'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
- **Writing & Copy Editing**: Very regularly 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
- **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, Tidyverse, Cython, Scikit, PyTorch, TensorFlow, Keras, Pandas, Plotly, Shiny, JUCE, SuperCollider
- **Tools**:   Git, Tableau, p5.js, Node.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