

# Ben Rosenberg

Github: [github.com/bl Rosenberg](https://github.com/bl Rosenberg)  
Website: [ben-rosenberg.com](https://ben-rosenberg.com)

Email: [brosenberg01@hamline.edu](mailto:brosenberg01@hamline.edu)

Mobile: (319) 671-2306

## EDUCATION

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- **Hamline University** Saint Paul, MN  
*Bachelor of Science - Computational Data Science* August 2022 - Present  
*Courses:* Introduction to Programming (Python), Data Mining / Machine Learning, Introduction to R
- **Minneapolis College** Minneapolis, MN  
*Transfer Curriculum - Mathematics* August 2021 - July 2022  
*Courses:* Calculus II, Statistics, Environmental Science
- **Southeastern Community College** Burlington, IA  
*Transfer Curriculum - Mathematics* August 2020 - May 2021  
*Courses:* Calculus I, Astronomy, English Composition

## SKILLS SUMMARY

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- **Languages:** Python, R, JavaScript, C++, SQL
- **Frameworks:** Scikit, PyTorch, TensorFlow, Keras, Pandas, Plotly, Shiny, JUCE, SuperCollider
- **Tools:** GIT, PostgreSQL, Tableau, Processing/p5, Microsoft Office, Google Workspace, UTM
- **Platforms:** macOS, Windows, Arduino, Raspberry Pi, Google Colab

## EXPERIENCE

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- **Hamline Oracle** Saint Paul, MN  
*Data Reporter* September 2022 - Present
  - **Data Accessibility:** Provided improved transparency by visualizing the school's financial, COVID, and other data only available by personal request or API calls
- **Magers & Quinn Booksellers** Minneapolis, MN  
*Online Sales Coordinator & Customer Service* April 2021 - Present
  - **Automation:** Identified and resolved data-entry inefficiencies with JavaScript-powered tools
  - **Logistics:** Coordinated international and domestic shipping of books
  - **Customer Communication:** Provided consistent, friendly service to a high volume of customer inquiries
- **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 many off-site events
  - **Transparency:** Improved transparency of a tip pooling system with data visualizations
- **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

## PROJECTS

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- **Bookstore employee GUIs and automation:** Built a set of simple, browser-based tools to improve the workflow of repetitive data-entry tasks. Tech: REST API, JavaScript, HTML, CSS
- **Markov chain-based generative music processing:** (Work in progress) Open source, embedded program for creating novel musical output from limited inputs. Tech: Python, C++
- **Stochastic "Drum Machine":** Created a technical framework and GUI from scratch for generating musical, rhythmic noise from a set of user-controlled stochastic processes. Tech: Python, PySimpleGUI/tkinter
- **Craigslist Apartment Search Assistant:** Created an original Python script for crawling through listings matching user-inputted parameters at regular time intervals, storing, and analyzing their data. Tech: Python

## SCHOLARSHIPS

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- Hamline Talent Scholarships for Music and Science - August, 2022
- Minneapolis College Foundation STEM Scholarship - September, 2021

## VOLUNTEER EXPERIENCE

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- **Mathematics Tutor** Minneapolis, MN  
*Conducted online and offline lessons for students in secondary school mathematics* *August 2018 - Present*
- **Copy Editing** Various / Remote  
*Helped peers and younger students prepare formal writing for applications or publication* *August 2016 - Present*

## PERSONAL EXPERIENCE & INTERESTS

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- **Musical Composition & Performance** Various / Remote  
*Wrote, performed, and recorded original music with groups large and small* *2013-Present*
- **Hobbyist Audio Software Development** Various / Remote  
*Developed original software for generating, processing, and organizing audio in digital formats* *2019-Present*