

Madeleine Guettler

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Summary

I am a highly motivated individual who recently graduated from Simmons University with a Bachelor of Science in Data Science and Analytics and a minor in Social Work. I am passionate about figuring out how I can use my strong foundation skills in statistical analysis and machine learning algorithms in R and Python to utilize the power data has in closing inequality gaps.

Education

Simmons University, Boston, MA

Bachelor of Science in Data Science and Analytics, May 2024

Minors: Social Work

Dean's List: (*Fall*: '21, '22, '23, *Spring*: '21, '22, '23, '24)

GPA: 4.0

Relevant Coursework:

Statistics: Introduction to Statistics, Introduction to Data Science, Intermediate Statistics: Design and Analysis, Regression Models, Time Series Analysis, Probability, Data Mining, Statistical Theory

Computer Science: Introduction to Computer Science, Database Management Systems, Data Interoperability, Data Structures

Business: Intro to Business & Management, Organizational Communication & Behavior

Skills

Computer: RStudio, Python – Pandas, Numpy, VS Code, MongoDB, MySQL, Microsoft Suite, Jupyter Notebook, Machine Learning Algorithms, Data Visualization, Qualtrics

Research Experience

The BU-MIT-Princeton-Simmons Prosody Lab, NSF Funded

Data Science Research Assistant

January 2023 – May 2024

- Contributed to an NSF-funded prosody research project in the field of Computational linguistics
- Collaborated in the implementation of advanced PoLaR Annotation strategies for analyzing participant recorded utterances
- Contributed to data preparation in RStudio for the implementation of machine learning algorithms
- Created graphical visualization of data attributes to identify potentially significant variables and outliers
- Developed expertise in implementing PCA, K-means, Random Forest, and Linear Regression algorithms through RStudio
- Presented research findings at Consortium for Computing Sciences Conferences Spring '23, '24

Related Experience

Simmons University, Boston MA

September 2022 – January 2024

Learning Assistant – Introduction to Statistics & Introduction to Computer Science

- Assisted students in comprehending statistical principles while gaining proficiency in R programming language.
- Assisted students in first time implementation of basic Python concepts (loops, tuples, dictionaries, classes) into their weekly projects
- Collaborated with colleagues and instructors in regular meetings to strategize ways of providing assistance to students, and leveraging insights from prior semesters.

MGH Center for Systems Biology Research Informatics Core, Boston MA

Web Development Intern

February 2019 – January 2021

- Helped design/create websites for organizations within Massachusetts General Brigham utilizing, HTML, CSS, and Ruby designed to help with better data management.
- Utilized a combination of manual and automatic testing to find bugs.
- Developed key communication, teamwork, and time management skills through consistently working closely with clients and colleagues.
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Leadership Opportunities

Hope Gain Center of West Michigan, Grand Rapids, MI

New Program Committee Member

March 2021-April 2022

- Created support programs for individuals struggling with mental health.
- Give seminars, do research, and help in fundamental key steps necessary to create up and running programs.

Conferences and Presentations

“Navigating the Iterative Process in Machine Learning and Linguistic Research”

Consortium for Computing Sciences in Colleges

April 2024

Topic: The usefulness of machine learning with prosody-meaning mappings where linguistic theory does not provide a clear framework.

“Machine Learning in Prosody and Meaning”

Consortium for Computing Sciences in Colleges

April 2023

Topic: Identifying what are the best attributes and optimal number of clusters that help predict mirativity

Awards and Honors:

Simmons University Undergraduate Class of 2024 Awards: Data Science and Analytics

Award ‘24

Simmons University Undergraduate Honor Society: Member of Academy – Awarded to top 10% of graduating class

Professional Associations:

**Sigma Xi, The Scientific Research Honor Society
Association for Computing Machinery**

**April 2023 – Present
September 2022 - Present**