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.

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 **April 2023 – Present**

Association for Computing Machinery **September 2022 - Present**