

Clara A. Richter

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<https://www.linkedin.com/in/clara-richter-> | <https://clara-richter.github.io/Website/>

EDUCATION

Georgetown University, Washington, D.C.
M.S. in Data Science and Analytics, 4.0/4.0

May 2023

Mount Holyoke College, South Hadley, Massachusetts
B.A. in Physics, (Magna Cum Laude) 3.8/4.0

May 2020

SKILLS

- **Programming:** R, Python (pandas, scikit-learn, nltk, KERAS+TensorFlow, PyTorch), HTML, SQL, Processing*, command line
- **Technical:** ML techniques, OOP, data cleaning, web scrapping, APIs, linear algebra, multivariate calculus, git/GitHub, big data tools and cloud infrastructure (Spark, MapReduce, Hadoop, AWS), artificial neural networks, statistical analyses
- **Data Visualization:** Tableau, Microsoft Office (Excel, PowerPoint), SketchUp, SPSS, Statistica, SIMCA-Online, matplotlib

WORK EXPERIENCE (40 hr/w)

Data Science Intern, Thomson Reuters Special Services, McLean, Virginia

May-August 2022

- U.S. government-related data project.
- Built a convolution neural network for facial reidentification (used python and SageMaker).
- Presented my work to company leaders.

Digital and Data Science Team Member, Takeda, Lexington/Cambridge, Massachusetts

June 2020-June 2021

- Member of team working to improve production yield using manufacturing data.
- High-volume data entry using Statistica. Review work of others, to detect and correct errors.
- Extract and clean large data sets using SIMCA-Online and Excel.

NSF Funded Research Intern (REU), University of Minnesota, Minneapolis, Minnesota

June-August 2019

- Planned and executed research project to develop an interaction technique for a hybrid AR physical display.
- Became adept with Sensel Morph hardware and software, Processing, SketchUp, and 3D printing.
- Wrote research report, co-authored publication, and presented findings in a scientific poster.

NSF Funded Research Intern (REU), Rochester Institute of Technology, Rochester, New York

June-August 2018

- Planned and executed research project to implement better eye tracking hardware in the HTC Vive VR headset.
- Became adept with Pupil Labs eye tracking hardware and software, STEAM VR, and the HTC Vive.
- Wrote research report and presented findings in a scientific poster.

PROJECTS:

[<https://clara-richter.github.io/Website/>] * Examining Political Engagement and Sentiment on Reddit: A big data analysis using Spark and Azure Databricks * MedEase: Using NLP to better understand medical documents * Gender Discrimination in STEM: Using advanced data visualization * Big Data Derby: Comparing neural networks with traditional machine learning methods * COVID-19 Vulnerability in America: Using probabilistic modeling and statistical computation with R * The Key to Success: Using APIs clustering, ARM, networking, decision trees, naïve bayes, and SVM * SQL Airport Project *

PUBLICATION:

Multi-Touch Querying on Data Physicalizations in Immersive AR. Bridger Herman, Maxwell Omdal, Stephanie Zeller, Clara A Richter, Francesca Samsel, Dr Greg Abram, Daniel F Keefe. Proceedings of the ACM on Human-Computer Interaction (2021) Volume 5, Number ISS pp. 1–20

*Processing: open-source graphical library and integrated development environment for computer programming in a visual context

**LEAP Symposium is Mount Holyoke College's premier showcase of student summer work, organized by and for MHC students

STEM CONFERENCES

- **Women in Data Science (WiDS 2020):** Poster Presentation
- **LEAP Symposium**:** Panel Presentation
- **APS Conference for Undergraduate Women in Physics (CUWip 2019, 2020):** Poster Presentation
- **Vision Sciences Society (VSS 2019):** Poster Presentation with RIT team

AWARDS & ACTIVITIES

- **Physics:** Award for Outstanding Physics Student (Bennett Prize) / National honor society for physics (Sigma Pi Sigma) / Physics Lab Grader (Spring 2020)
- **Study Abroad:** University College Cork, Cork, Ireland (Fall 2018)