Clara A. Richter

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EDUCATION

Georgetown University, Washington, DC — Master's in Data Science and Analytics, May 2023 | **GPA**: 4.0
Mount Holyoke College, South Hadley, Massachusetts — B.A., Magna Cum Laude, May 2020
Major: Physics **Minor**: Film — **GPA**: 3.8 overall/3.8 in Major

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

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
- 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:

[http://clararichter.georgetown.domains/] As part of my coursework, this data science project explored the importance of education for success. Data was gathered, some with APIs (Twitter and Wiki). Data was cleaned and prepped. The methods and models used included Clustering, ARM and Networking, Decision Trees, Naïve Bayes, SVM.

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

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)

*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