Amelia Tarren

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Education

University of Vermont — Burlington, Vermont
Masters of Science in Applied Mathematics, Minor in Business — *Dec.2018- Jan. 2020, Expected*

Hampshire College — Amherst,Massachusetts
Associate's in Liberal Arts — *Aug. 2011 – May 2015*

Experience

Graduate Research and Teaching Assistant — Dec. 2018 – Present
University of Vermont — *Burlington, VT*

- Within the capacity of my graduate assistantship I served as the lead instructor for Calculus, and Linear Algebra sections by delivering instruction, evaluation and technical support to students.

Applied Mathematics Researcher, Data Science — Jun. 2020 – Present
Vermont Complex Systems Center — *Burlington, VT*

- Designed pipelines for algorithmic solutions to software platforms for Twitter data analysis
- Implemented time series algorithms and machine learning to identify signals in sociopolitical events in financial and Natural Languate Programming settings

Research Specialist — Sept. 2017 – Jan. 2018
NOAA Sea Grant — *Burlington, VT*

- Developed research pipelines with international, federal, state and private agencies on water quality research
- Coordinated research and outreach programs for the Lake Champlain Sea Grant, Vermont Water Resources and Lake Studies Center, and the Northeastern States Research Cooperative.
- Manged intern staff and maintain Lake Champlain Sea Grant outreach curriculum, and laboratory

Research Assistant for ATLAS, Large Hadron Collider, CERN — Sept. 2015 – Dec. 2018
University of Massachusetts — *Amherst, MA*

- Assessed the discrimination power of various Beyond the Standard Model theories predicting the Z' boson. Used ROOT to analyze 13 TeV Monte Carlo simulations for the ATLAS collaboration.
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Technical Skills

Languages: Python, C/C++, Java, SQL, JavaScript, HTML/CSS, MS Suite, Matlab
Frameworks: Jupyter, RESt, WordPress, Jekyll
Libraries: pandas, NumPy, Matplotlib
Selected Coursework: Complex Network Analysis, Numerical Analysis, Chaos and Dynamical Systems

Awards

UVM Deans Research Specialist Outreach Merrit Award | *University of Vermont*2017,2018
Ingenuity Leadership Award | *Hampshire College*May 2015
Human Relations Award, National Conference for Community and Justice | *NCCJ*May 2010

Publications and selected presentations upon request