Rileigh **Bandy**

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Research Interests

Uncertainty Quantification and Validation

- Oscillating chemical and ecological systems
- Discrepancy between high-fidelity and low-fidelity models
- Development of data-driven models that adhere to physical constraints
- Calibration and validation algorithms

Education

The University of Colorado, Boulder

August 2019 - May 2024 (Expected)

Ph.D., Computer Science

4.0/4.0 GPA

- Advisors: Rebecca Morrison, Ph.D. and Elizabeth Bradley, Ph.D.
- CS Coursework: Validation and Uncertainty Quantification, Chaotic Dynamics, Data Mining, and Ethical Hacking

The University of Texas at Austin

August 2015 - May 2019

B.S., Computer Science

3.67/4.0 GPA

- Texas Interdisciplinary Plan Scholar
- CS Coursework: Practical Applications of Natural Language Processing, Software Engineering, Computer Networks, Software Design, Algorithms, Operating Systems, Computer Architecture, and Data Structures

KTH Royal Institute of Technology

August 2018 - January 2019

Study Abroad Exchange

- CS Coursework: Statistical Methods in Applied Computer Science, Machine Learning, Artificial Intelligence, and Computer Security

Research Experience

University of Texas at Austin

Austin, TX

Research Fellow - Section of Computational Materials, under Graeme Henkelman, Ph.D.

June 2016 - August 2016, May 2018 - June 2018, and June 2019 - August 2019

- Contributed to the Transition State Atomic Simulation Environment (TSASE) software library global optimization methodology. (http://theory.cm.utexas.edu/tsase/)
- Helped create a database for sharing collaborative results. (http://fri.oden.utexas.edu/ fri/fridb_GO/server.py)
- Experienced in reading and interpreting peer reviewed literature.

Institute of Pure and Applied Mathematics

Los Angeles, CA

REU Participant - Research in Industry Projects for Students, Industry Sponsor: HRL Laboratories, LLC

June 2018 - August 2018

- Employed a data science approach and machine learning to simulated additive manufacturing.

Industry Experience

Electric Reliability Council of Texas

Taylor, TX

Cybersecurity Intern

May 2017 - December 2017

- Improved the company's security posture through the creation of an automated Open-Source Intelligence program that alerts security analysts of threats to the company or its personnel on the Clearnet and dark web.
- Created educational phishing exercises.

Awards & Distinctions

2020	**Recipient**, Dean's Summer Research Fellowship	*Boulder, CO*
2018	**Winner of the Student E-Poster Competition in the Technology, Engineering, and Math category**, the American Association for the Advancement of Science (AAAS) annual meeting	*Austin, TX*
2018	**Recipient**, Chevron Scholarship	*Austin, TX*
2018	**Recipient**, Swedish Excellence Endowment to study abroad at KTH Royal Institute of Technology	*Stockholm, Sweden*