

# Rleigh 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](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 Counsel of Texas

Taylor, TX

#### CYBER SECURITY 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