

Abigail Swenor

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EDUCATION

University of Notre Dame
Ph.D. in Computer Science

South Bend, IN
Expected: 2027

University of Colorado Colorado Springs
B.S., Computer Science, *Summa Cum Laude*
Minors in Mathematics, Philosophy, Computer Engineering

Colorado Springs, CO
Graduated: May 2022
GPA: 3.921/4.0

RESEARCH EXPERIENCE

Graduate Research, University of Notre Dame, July 2022-Current

- Advised by Dr. Walter J. Scheirer
- Member of the Computer Vision Research Lab (CVRL)
- Working on the Tesserae project in conjunction with the Department of Classics at the University of Buffalo

REU Program, University of Colorado Colorado Springs, May 2021 – August 2021

- National Science Foundation Research Experience for Undergraduates
- Topic: Machine Learning and Natural Language Processing
- Created two algorithms that utilized randomness to mitigate adversarial attacks on NLP models against 7 state-of-the-art attack methods within statistical significance
- Wrote a proposal, midterm report, and final paper in LaTeX in AAAI format
- Presented work three times throughout the 10 week program: proposal, midterm, final

Undergraduate Researcher, University of Colorado Colorado Springs, August 2021 – Present

- Language Information and Computation Lab (LINC Lab)
- Researching further developments on the defense of NLP models against adversarial attacks; currently focusing on adapting previous work to multi-class text classification
- Write three papers a semester using LaTeX and AAAI format
- Present on work being done at least once a semester

PUBLICATIONS & PRESENTATIONS

AAAI 2022 Undergraduate Consortium, February 2022

- Published an extended abstract titled “Using Random Perturbations to Mitigate Adversarial Attacks on NLP Models”
- Presented a poster for my work at the conference and attended workshops for the AAAI UC program

International Conference on Natural Language Processing 2021, December 2021

- Published a full paper titled “Using Random Perturbations to Mitigate Adversarial Attacks on Sentiment Analysis Models”
- Presented our work virtually at the ICON conference as a 20-minute presentation

Cybersecurity Poster Presentation, November 2021

- Presenting work on defense of Natural Language Processing models at the National Cybersecurity Center in Colorado Springs, CO

EMPLOYMENT

Teaching Assistant/Grader, University of Colorado CS, January 2021 – May 2022

- Class: Data Structures and Algorithms & UI/UX Design taught by Michaela Gonzalez
- Reviewing and grading student Java programs and design notebooks weekly
- Providing detailed and informative feedback to students based on their submissions

Student Program Assistant, University of Colorado Colorado Springs, Aug 2018 – Jan 2021

- Department of Anthropology, Department of Languages & Cultures
- Communicate and collaborate effectively with staff and faculty and organize faculty participation in campus events
- Organize and oversee department inventory
- Update and maintain department website and social media platforms
- Investigate and handle any issues or projects that arise throughout the academic year

AWARDS/HONORS

Graduate:

- Richard & Peggy Notebaert Premier Fellow

Undergraduate:

- President's List Honor Roll, Fall 2018 – Spring 2022
- Chancellor's Award Scholarship
- President, Phi Sigma Sigma – Iota Kappa Chapter, 2021