

Dominick Reilly

Department of Computer Science
University of North Carolina at Charlotte
Charlotte, NC 28223

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Education

University of North Carolina at Charlotte
Doctor of Philosophy, Computer Science
Advisor: Dr. Min C. Shin

August 2021 - Present

University of North Carolina at Charlotte
Bachelor of Science, Computer Science
Honors: *Summa Cum Laude* (GPA: 4.0)

January 2019 - May 2021

Skills

Language Experience
Software Experience
Library Experience

Python, Java, C++
Flask, Tableau
PyTorch, Keras, NumPy, Pandas, Scikit

Work Experience

University of North Carolina at Charlotte, Charlotte NC
Undergraduate Research Assistant - Data Privacy Lab

August 2020 - July 2021

- Differential privacy, provably private image obfuscation
- Designed and implemented image obfuscation methods satisfying rigorous privacy guarantees
- Conducted comprehensive evaluations of private image obfuscation techniques and explored their efficacy in preserving image privacy and utility

University of North Carolina at Charlotte, Charlotte NC
Undergraduate Research Assistant - Video and Image Analysis Lab

August 2019 - July 2021

- Computer vision, object detection, object tracking, speech processing
- Developed machine learning models to classify social interaction from pre-determined speech features and sparsely labeled training data
- Optimized and implemented state of the art deep learning models to localize and segment objects of interest in videos of biological organisms
- Designed algorithms to improve orientation estimation of objects. This work resulted in a 90% reduction in the estimated orientation error

Awards, Notable Achievements

1. Received best poster award in the Mathematics and Computer Science Discipline at UNC Charlotte's undergraduate research conference for my poster, "Evaluating Provably Private Obfus-

cations for Eye and Face Images” (2020)

2. Chancellor’s List (2019-2021)

Publications

1. **Dominick Reilly**, Liyue Fan, ”Comparative Evaluation for Differentially Private Image Obfuscation,” IEEE TPS (*accepted* 2021)

Presentations

1. **Dominick Reilly**, ”SocialBit: A Non-invasive and Robust Solution for Measuring Social Interaction,” EXPLORE Event, UNC Charlotte (2021)
2. **Dominick Reilly**, ”SocialBit: A Non-invasive and Robust Solution for Measuring Social Interaction,” Graduate Research Seminar, UNC Charlotte (2021)