Dominick Reilly

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Research Interests

My current research focuses on video understanding, specifically action recognition for activities of daily living videos taken from monitoring cameras. I would like to become more involved in the challenges of episodic memory from egocentric videos, and also audio-visual representation learning.

Education

University of North Carolina at Charlotte *August 2021 - Present*
Doctor of Philosophy, Computer Science
Advisor: Dr. Srijan Das

University of North Carolina at Charlotte *January 2019 - May 2021*
Bachelor of Science, Computer Science *Overall GPA:* 4.0

Experience

University of North Carolina at Charlotte *August 2022 - Present*
Research Assistant - Charlotte Machine Learning Lab

- Researching video transformers for understanding activities of daily living videos.
- Researching self-supervised training techniques for image classification with ViTs.

University of North Carolina at Charlotte *July 2021 - July 2022*
Research Assistant - Data Privacy Lab

- Researched differentially private approaches to image obfuscation.
- Created a demo demonstrating differentially private image obfuscation. This work was published at EDBT 2022: http://3.223.148.187/.

Publications

1. **Dominick Reilly**, Srijan Das, "Just Add π! Pose Induced Video Transformers for Understanding Activities of Daily Living," arXiv:2311.18840 (Under review), 2024.
2. Srijan Das, Tanmay Jain, **Dominick Reilly**, Pranav Balaji, Soumyajit Karmakar, Shyam Marjit, Xiang Li, Abhijit Das, Michael Ryoo, "Limited Data, Unlimited Potential: A Study on ViTs Augmented by Masked Autoencoders," IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2024.
3. Muhammad Usama Saleem, **Dominick Reilly**, Liyue Fan, "DP-Shield: Face Obfuscation with Differential Privacy," International Conference on Extending Database Technology (EDBT), 2022.
4. **Dominick Reilly**, Liyue Fan, "Comparative Evaluation for Differentially Private Image Obfuscation," IEEE International Conference on Trust, Privacy and Security in Intelligent Systems, and Applications (IEEE TPS), 2021.

Academic Activities

- Reviewer at AAAI 2024, AAAI 2023, AI4HC 2023

Awards

1. The Chateaubriand Fellowship (awarded by the Embassy of France to U.S. Ph.D. students for conducting research in France), 2023
2. Best poster award in Mathematics and Computer Science, UNC Charlotte Undergraduate Research Conference, 2020