# ETHAN WILSON

1325 NE 3rd Avenue ◇ Gainesville, Florida 32641

+1 (706) · 844 · 6399 ◇ ethanrwilson1998@gmail.com

## EDUCATION

### Ph.D. in Computer Science
*Aug. 2020 - 2025 (expected)*

University of Florida

◇ Advisor: Dr. Eakta Jain.

◇ Awarded Graduate Research Preeminence Award.

◇ Awarded Generation NEXT fellowship.

### B.S. in Computational Media
*Aug. 2016 - Dec. 2019*

Georgia Institute of Technology

◇ Graduated with Highest Honors.

## LINKS

### LinkedIn
https://www.linkedin.com/in/ethan-wilson-018557196/

### Personal Website
https://ethanrwilson1998.wixsite.com/ethan-wilson

## EXPERIENCE

### Graduate Researcher
*Aug. 2020 - present*

University of Florida
*Gainesville, Florida*

◇ Leads multiple research projects producing first author publications.

◇ Leads collaborations with distinguished research scientists.

◇ Conducts literature reviews on a range of research topics.

◇ Mentors multiple M.S. and undergraduate students.

◇ Designed and evaluated multiple privacy mechanisms for streamed eye tracking data, evaluating across data-centric and user-centric metrics and analyzing multiple adversarial threat scenarios.

◇ Designed an end-to-end face swapping pipeline to provide facial privacy.

◇ Developed targeted loss equation which improves eye gaze representation of deep learning face swap algorithms by 20%.

◇ Developed multiple immersive Virtual Reality experiments to evaluate personal safety and privacy in VR.

### Game Development
*Aug. 2016 - Present*

https://ethanrwilson1998.wixsite.com/ethan-wilson/game-development

◇ Created many video games and game prototypes with positive audience reception.

◇ Showcased ability to perform all aspects of game development and to work specialized roles as programmer, animator, or technical artist within a larger team.

◇ Highly skilled with Unity3D as a development environment and Blender3D for asset creation and animation.

### Lecturer
*Aug. 2022 - Dec. 2022*

University of Florida
*Gainesville, Florida*

◇ Supervised Teaching experience in collaboration with Dr. Eakta Jain.

◇ Designed class materials, including learning objectives, course projects, and lecture materials.

◇ Delivered lectures and lead class discussions.

**Software Engineer**  *Dec. 2019 - Aug. 2020*
Elavon — U.S. Bank  *Atlanta, Georgia*

◇ Designed and developed a server-side analytics pipeline to securely route transaction metrics from production environments through internal servers then to analytics management tools.
◇ Established a predictive analytics support workflow so that team members could proactively address irregularities and fix issues before systems failed.
◇ Optimized an internal simulation tool for a 50% performance increase.

**Teaching Assistant**  *Jan. 2017 - Dec. 2019*
Georgia Institute of Technology  *Atlanta, Georgia*

◇ Taught *Introduction to Computing for Engineers* for three semesters.
◇ Taught *Computer Graphics* for one semester.

**Laboratory Assistant**  *May. 2018 - Sep. 2018*
Georgia Institute of Technology  *Atlanta, Georgia*

◇ Aided in construction of new Electrical and Computer Engineering Makerspace and Laboratory.

## AWARDS

| | |
|---|---|
| Selected to attend AAAS S-STEM Scholars' annual meeting. | *2023* |
| University of Florida Graduate Research Preeminence Award. | *2020 - Present* |
| University of Florida Generation NEXT Fellowship Recipient. | *2020 - Present* |
| Georgia Institute of Technology's Highest Honors. | *2019* |

## PUBLICATIONS

[1] E. Wilson, A. Ibragimov, M. Proulx, S. D. Tetali, K. Butler, and E. Jain, "Privacy-preserving gaze data streaming in immersive interactive virtual reality: Robustness and user experience," in *2024 IEEE Conference Virtual Reality and 3D User Interfaces (VR)*, (under review), IEEE, 2024, pp. 1–12.

[2] E. Wilson, F. Shic, S. Jörg, and E. Jain, "Towards mitigating uncann(eye)ness in face swaps via gaze-centric loss terms," *Computers & Graphics*, 2023, (under review).

[3] E. Wilson, F. Shic, and E. Jain, "Introducing explicit gaze constraints to face swapping," in *Proceedings of the 2023 Symposium on Eye Tracking Research and Applications*, 2023, pp. 1–7.

[4] K. LaRubbio, E. Wilson, S. Koppal, S. Jörg, and E. Jain, "Give me some room please! personal space bubbles for safety and performance," in *2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)*, IEEE, 2023, pp. 897–898.

[5] E. Wilson, A. Persaud, N. Esposito, *et al.*, "The Uncanniness of Face Swaps," *Journal of Vision*, vol. 22, no. 14, p. 4225, Dec. 2022.

[6] E. Wilson, F. Shic, J. Skytta, and E. Jain, "Practical digital disguises: Leveraging face swaps to protect patient privacy," *arXiv preprint arXiv:2204.03559*, 2022.

[7] E. Wilson, J. Skytta, F. Shic, and E. Jain, "Annotation system for aiding automatic face detectors," University of Florida, Tech. Rep., 2021.

[8] E. Wilson, J. Skytta, F. Shic, and E. Jain, "Benchmarking face detectors," University of Florida, Tech. Rep., 2021.

## INVITED TALKS AND PRESENTATIONS

◇ **Protecting User Eye Movements in Virtual Reality**  *Fall 2023*
Invited demonstration representing the Florida Institute of Cybersecurity (FICS) at the University of Florida Malachowsky Hall ribbon cutting ceremony.

◇ **Introducing Explicit Gaze Constraints to Face Swapping**  *Summer 2023*
Conference presentation at 2023 ACM Symposium of Eye Tracking Research and Applications (ETRA).

◇ **Face Swapping and Facial Privacy**  *Spring 2023*
Guest Lecture in Human-Computer Interaction at University of Florida.

◇ **Personal Space Bubbles for Safety and Performance**                    *Summer 2023*
  Conference presentation (poster) at 2023 IEEE Virtual Reality and 3D User Interfaces (VR).
  Presented at satellite event hosted by Virginia Tech.
◇ **Development of Design of Experiments**                                  *Spring 2023*
  Guest lecture in Research Methods for Human-centered Computing at University of Florida.
◇ **Face Swapping as a Privacy Mechanism**                                  *Summer 2022*
  Guest lecture in Human-Computer Interaction at University of Florida.
◇ **The Uncanniness of Face Swaps**                                         *Summer 2022*
  Conference presentation (poster) at 22nd Annual Meeting of the Vision Sciences Society (VSS).
◇ **An Introduction to the Metaverse**                                      *Spring 2022*
  Guest lecture in Legal Environment of Business at Berry College.
◇ **An Introduction to the Metaverse**                                      *Spring 2022*
  Invited talk hosted by the Gator TeamChild Juvenile Law Clinic at the University of Florida,
  Levin College of Law.

## SERVICE

◇ Reviewer for ACM Transactions on Applied Perception (TAP) (*2023*).
◇ Reviewer for Computers and Graphics (*2023*).
◇ Reviewer for IEEE VR (*2023*).
◇ Volunteer for Symposium on Applied Perception (SAP) (*2021*).
  Created a virtual replica of Rennes, France in Mozilla Hubs to act as an online meeting place for
  virtual participants and poster presentations.
◇ Volunteer to PrXR workshop at IEEE VR (*2021*).