

# Jonathan Segal, MS

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## Education

**Cornell University**, Ph.D. Information Science, **Fourth Year, Intended grad: May 2028**

Advisor: Dr. Angelique Taylor

**University of New South Wales**, Study Abroad, **2020**

**Iowa State University**, B.S. Software Engineering, **2018 - May 2022**

Research Advisors: Dr. Michael Dorneich, Dr. Stephen Gilbert

## Publications

- **Segal, J.**, Turman, M. L., Emrich, M., McLeod Daphnis, S. I., Rodriguez, S., Difede, J., and Stevenson Won, A. Practitioner-centered design: A case study of a human-computer interaction-clinician collaboration on the development of prototype virtual reality environments for the treatment of posttraumatic stress disorder and moral injury in healthcare workers. *JMedXR*, 2026. Accepted for publication.
- **Segal, J.** Understanding Cross-Team Communication Through Shared Cognition in EMS to ED Handoffs. *Interactive Health Doctoral Colloquium (IH DC '26)*, 2026.
- Fieffer, S. J., Matsumuro, M., Newendorp, A. K., Sharma, S., **Segal, J.**, Lovig, L. A., Shah Abadi, G., Deal, A. B., Sabouni, H., Ranjbar, M. J., Lauharatanahirun, N., Dorneich, M. C., Won, A. S., and Gilbert, S. B. *MazeWorld: A Multiplayer 3D Research Testbed for Human Teaming, AI Agent Integration, and Multiple XR Disciplines*. *HCI 2025*.
- **Segal, J.**, Hu, W., Fuoss, P., Ritter, F., and Shrager, J. A Multi-Scale Cognitive Interaction Model of Instrument Operations at the Linac Coherent Light Source. *Review of Scientific Instruments*, 2025.
- Jung, C., Collins, J., Gonzalez Penuela, R., **Segal, J.**, Stevenson Won, A., Azenkot, S. Accessible Nonverbal Cues to Support Conversations in VR for Blind and Low Vision People. *ASSETS 2024*.
- **Segal, J.**, Rodriguez, S., Raghavan, A., Baez, H., Jung, C., Collins, J., Azenkot, S., Stevenson Won, A. *SocialCueSwitch: Towards Customizable Accessibility by Representing Social Cues in Multiple Senses*. *CHI Extended Abstracts*, 2024.
- Yoo, Y.\*, **Segal, J.\***, Hayes, A., Stevenson Won, A. Just Look at Them! Encouraging Self-Reflection on Teacher Gaze Behavior through Data Visualizations in Virtual Reality. *CHI Extended Abstracts*, 2024.  
\* Authors contributed to this work equally
- Francis, R., **Segal, J.**, Farah, Y., Rozell, J., Dorneich, M., and Gilbert, S. *MazeWorld: A Game-Based Environment Developed to Assess Teaming Behaviors*. *HFES*, 2022.
- Finseth, T., Dorneich, M., Keren, N., Franke, W., Vardeman, S., **Segal, J.**, Deick, A., Cavanah, E., and Thompson, K. The effectiveness of adaptive training for stress inoculation in a simulated astronaut task. *HFES*, 2021.

## Preprints

- Taylor, A., Tanjim, T., Cao, H., Nicoloy, J. B., **Segal, J.**, St. George, J., Kim, S., Ching, K., Ortega, F. R., and Lee, H. R. (2025). *Co-Designing Augmented Reality Tools for High-Stakes Clinical Teamwork*. *arXiv*, 2025.

## Talks

Toward Augmented Reality Guidance for High-Stakes Medical Care, delivered at:

- Robotics Lab Webinar, 2026
- Colorado State University Computer Science Department Colloquium, 2025
- XR Monthly, XR Collaboratory, Cornell Tech, 2025

Social Interaction in Virtual Worlds, Introduction to Communication Fall 2023 at Cornell University, Instructor: Margolin, D.  
XR Live Scanning, Neurosalon: Life History Lab

## Awards

Finalist, Cornell Graduate School Three Minute Thesis (3MT), 2026

CIS Dream Grant 2024, \$1,000 award

## Service

*Future Civilizations Conference, Outreach Chair*, 2026

Reviewer: ACM HRI 2025; ACM HRI 2024; ACM CHI 2024; IS Student-Applicant Reading Program 2024 and 2025

IT Chair: XR Access 2024

Student Volunteer: AWE 2024 and 2025; Immersive Media in Medicine Symposium 2024; SIGGRAPH 2024

Organizing Committee: Information Science Research Retreat 2023

K-12 Volunteering 2024 to 2026: PS 32 Field Trip, HS Programming Contest, WiCC HS Workshop, PS/IS 78Q Field Trip

Student Leader: IS PhD Visit Days (Cornell Tech)

WiCC HS Programming Workshop, Volunteer mentor

Queens Tech Fair 2025, AirLab Ambassador

Judge, State Science and Technology Fair of Iowa, 2022

## Posters

- Shaveet, E., **Segal, J.**, Mitchell, H., and Choudhury, T. Towards Gaze Tracking on Short Form Videos for Body Image Disturbance-Driven Condition Detection and Self-Monitoring. CHI Workshop, 2025.
- **Segal, J.**, Pugh, C., Nicoloy, J., Ortega, F., Taylor, A. Enhancing Emergency Room Response through Hands-Free Augmented Reality Assistance. Immersive Media in Medicine Symposium, 2024.
- Fieffer, S., Matsumuro, M., Newendorp, A., Sharma, S., **Segal, J.**, Lovig, L., Abadi, G. S., Deal, A., Sabouni, H., Ranjbar, M. J., Lauharatanahirun, N., Dorneich, M., Won, A. S., and Gilbert, S. B. MazeWorld: A Multiplayer 3D Research Testbed for Human Teaming, AI Agent Integration, and Multiple XR Disciplines. IEEE VR, 2025.
- **Segal, J.**, Pugh, C., Nicoloy, J., Ortega, F., Taylor, A. AR application design for Healthcare Teams. XR Access, 2024.
- **Segal, J.**, Rodriguez, S., Raghavan, A., Baez, H., Jung, C., Stevenson Won, A. Guide to Distributing Tools for VR Accessibility Accommodations. XR Access, 2023.
- **Segal, J.**, Jang, Y., Kim, H., Yao Wang, C., Jung, M., Fussell, S., Stevenson Won, A. Improving collaboration in remote teams through tools to promote mutual understanding of nonverbal behavior. XR Retreat, 2022.
- Jang, Y., Kim, H., **Segal, J.**, Yao Wang, C., Hayes, A., Fussell, S., Stevenson Won, A. A Training Tool to Help Teachers Recognize and Reduce Bias in Their Classroom Behaviors and Increase Interpersonal Competence. XR Retreat, 2022.
- **Segal, J.**, Hu, W., Fuoss, P., Shrager, J. Multi-Scale Cognitive Simulation can Enhance the Efficiency of LCLS Experimental Operations. LCLS, 2022.
- **Segal, J.**, Rozell, J., Francis, R., Farah, Y., Dorneich, M., Gilbert, S. MazeWorld: A Game-Based Environment developed to Assess Teaming Behaviors. ISU URS, 2022.
- Rozell, J., Cavanah, E., **Segal, J.**, Dorneich, M., Gilbert, S. Human-Agent Teams and MazeWorld. ISU URS, 2021.

## Mentorship & Advising

Sunishka Sil (Master Student). AR Development 2025 - Present.

Sirui Wang (Master Student). AR Development 2025 - Present.

Weicong Hong (Master Student). ER In Lab Study 2025 - Present.

Michael Twersky (Master Student). ER In Lab Study 2025 - Present.

Ludovic Morin (Master Student). GenFlows Procedure Generation 2025 - Present.

## Teaching Experience

INFO 5368 - *Practical Applications in Machine Learning*

Teaching Assistant, Spring 2025 at Cornell Tech, Instructor: Dr. Angelique Taylor

INFO 5340/ CS 5650 - *Virtual and Augmented Reality*

Teaching Assistant, Fall 2024 at Cornell Tech, Instructor: Haroldson, H.

INFO 4505/5505 - *Computing and Global Development*

Teaching Assistant, Spring 2024 at Cornell University, Instructor: Vashistha, A.

## Industry Experience

*High School Mentor, RISE, Remote 2026.* Mentor for one high school on a research project

*High School Mentor, Veritas AI, Remote 2024.* Mentored two high school students on research submitted to HS journals

*Research Intern, SLAC (GISMo), Palo Alto, CA, 2022.* Cognitive modeling of teams using the particle accelerator

*Summer Analyst, BlackRock, New York, NY, 2021.* Built analytics dashboards for product metrics

*Software Engineering Intern, Dwolla, Des Moines, IA, 2020.* Optimized internal admin systems for API management

*Software Developer Intern, Corteva Agriscience, Johnston, IA, 2019.* Built lab management systems in Angular and .NET

## **Leadership**

*Co-President, **PhDs at Cornell Tech (PACT)**, 2026–2027*

*Research Track Chair, **Augmented World Expo**, 2026*

*Co-Strategic Officer, **PhDs at Cornell Tech (PACT)**, 2025–2026*

*Treasurer, **Information Science Graduate Student Association at Cornell**, 2022–2024*

*Student Engagement Co-chair, **Iowa State Engineers' Week**, 2021–2022*

*Chair member, **Iowa State Software Engineering Student Council**, 2021–2022*

## **Certifications**

Emergency Medical Technician (EMT) – Basic, NYS Bureau of EMS, New York, USA