# **Christopher You**

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#### **EDUCATION**

Ph.D. in Human Centered Computing, University of Florida in Gainesville
Department of Computer and Information Science Engineering
Advisor: Dr. Benjamin Lok

M.S. in Computer Science, University of Florida in Gainesville
Department of Computer and Information Science Engineering
Advisor: Dr. Benjamin Lok

B.S. in Computer Science, University of Minnesota-Twin Cities in Minneapolis
College of Science and Engineering
Advisor: Dr. Evan Suma Rosenberg

Aug 2020 – May 2025

Aug 2020 – Dec 2022

Sep 2018 - May 2020

GPA: 3.8

### TECHNICAL SKILLS

LanguagesJava, Python, C#, C, C++, OCaml, F#, x86\_64 Assembly, CSS, HTML, JavaScript, PHPApplicationsUnity3D, OpenGL, MATLAB, SolidWorks, DialogFlow, UnrealEngine, React, UI/UX<br/>Design, wireframing, usability testing, AR/VR

### **EXPERIENCE**

## Research Assistant, Virtual Experience Research Group

Aug 2020 - Present

- Primarily investigating embodiment and the use of virtual humans to elicit and reduce bias.
- Developing virtual human platform to help those with psychiatric disorders interact with their healthcare providers through use of practice with virtual providers through grant-funded work.
- Developing virtual human platform to increase clinical trials in minorities and older populations through grant-funded work.
- Conducting user studies via interviews, surveys, ideation sessions, usability evaluation, statistics, and hypothesis testing especially in fields of user behavior and bias.

## Research Assistant, Davidson DRiVE Lab

May 2022 - Aug 2022

- Mentored undergraduate students in VR/AR development via Unity in virtual embodiment, flight simulation, and UX/UI design
- Concurrently developing two applications via Unity for embodiment in VR to study implicit bias and sense of embodiment; publication in development

## **Software Development Engineer Intern,** *Amazon*

May 2020 - Aug 2020

- Developed auto-complete feature for Amazon Help Services to be incorporated into services such as Alexa Help Domain and Amazon Customer Service Help Search.
- Utilized a knowledge graph to generate results by natural language processing, synonym mapping, SPARQL, and front-end UI development.

## **Research Assistant**, *Illusioneering Lab*

Oct 2018 - May 2020

- Created virtual environments in Unity to prototype and study novel locomotion techniques in virtual reality.
- Worked with graduate students to conduct pilot tests for studies, participate in lab meetings, conduct qualitative and quantitative analysis, and assist with human studies in VR.

## IT Intern, Wells Fargo

Jun 2019 – Aug 2019

- Co-developed and led project automating intern projects, reduced half hour activities to 15 seconds.
- Primarily integrated tech realizations in Python (GUI, back-end algorithms), JavaScript (web scrape), and CSS.

**Co-founder**, *SignalTokens* 

Jun 2020 - Jul 2021

DEACTIVATED 2021 https://signaltokens.org/

- Co-founded and launched company *SignalTokens*, an application to help relieve the pressures associated with medical students applying for residency.
- Applicants can select programs from a limited number of tokens in order to convey interest.
- Program directors and coordinators can view students who have selected their program and can utilize this information to interview more students who are better aligned for their programs.

## Lead developer, AR- TIPS

Feb 2020 - Present

Intellectual Property, Augmented Reality – Transjugular Intrahepatic Portosystemic Shunts (AR-TIPS)

- Developed a navigational AR program to be used by surgeons performing the TIPS procedure, filed for intellectual property at the University of Minnesota.
- Utilized a HoloLens to create an augmented overlay of catheters for medical staff to mitigate the risk and time of the TIPS procedure.
- Directional and angular magnitudes of needle are determined via TCP connection of flex sensor data, Arduino controllers, and target tracking of HoloLens.

## **PUBLICATIONS**

## **Conference Proceedings**

**You, C.,** Benda, W., Suma Rosenberg, E., Ragan, E., Lok, B., & Thomas, J. To be presented October 2022. Strafing Gain: Redirecting Users One Diagonal Step at a Time. *2022* IEEE ISMAR.

**You, C.** Ghosh, R., Maxim, A., Cooks, E., & Lok, B. To be presented September 2022. How does a virtual human earn your trust? Characteristics that impact willingness to self-disclose to virtual humans. *2022 ACM IVA.* 

### Posters & Extended Abstracts

Jurczyk, K., **You, C.**, Nourani, M., Gupta, M., Anthony, L., & Lok, B. (2021, October). Romadoro: Leveraging Nudge Techniques to Encourage Break-Taking. In *The Adjunct Publication of the 34th Annual ACM Symposium on User Interface Software and Technology* (pp. 66-69).

**You, C.**, Suma Rosenberg, E., & Thomas, J. (2019, October). Strafing gain: A novel redirected walking technique. In *Symposium on Spatial User Interaction* (pp. 1-1).

### Manuscripts in Submission

**You, C.,** Peck, T., Gomes de Siqueira, A., Stuart, J., & Lok, B. (2022, September). What my bias meant for embodiment: Embodying a virtual avatar in desktop virtual reality. Conference submission.

## Manuscripts in Preparation

**You, C.,** Robinson, R., & Lok, B. (2022, May). Designing Culturally-Tailored Virtual Humans in Doctor-Patient Interactions, 2022. Conference submission.

**You, C.,** Ghosh, R., Maxim, A., & Lok, B. (2022). Culturally-Tailored Virtual Humans: A Systematic Review. 2022. Journal Submission.

### **FUNDING RECEIVED**

**Olson-Mitchell STEM Translational Communications Project Award**, University of Florida. *Changing the Hegemonic Narrative: Diagnose Me as I Say, Not As You Assume.* Christopher You, Rakeem Robinson, and Benjamin Lok. 2021-2022.

**Graduate School Preeminence Award,** University of Florida. *Fellowship.* Christopher You, 2020 – 2025. **Undergraduate Research Opportunities Program Award,** University of Minnesota. *Embodiment of a Female Avatar to Decrease Implicit Bias.* Christopher You, Evan Suma Rosenberg. 2020. **Undergraduate Research Opportunities Program Award,** University of Minnesota. *Strafing Gain: A Novel Redirected Walking Technique.* Christopher You, Evan Suma Rosenberg. 2019.

# SERVICES AND PROFESSIONAL ACTIVITIES

Conference Reviewer IEEEVR: IEEE Conference on Virtual Reality and 3D User Interfaces (2022)

IEEE ISMAR: International Symposium on Mixed and Augmented Reality (2022)

Student Volunteer
Undergraduate Research Panelist
ACM Spatial User Interaction
University of Minnesota