

Xander Koo

firstname AT gatech DOT edu
<https://xanderk.ooo>

Ph.D. Student in Human-Centered Computing at Georgia Tech

Areas of Interest

Social Computing · Social Media · Politics · Labor

Education

Aug 2022 – present

Ph.D. in Human-Centered Computing
Georgia Institute of Technology | Atlanta, GA
Advised by Dr. Amy Bruckman | GPA: 4.0

Aug 2017 – Dec 2021

Bachelor of Arts
Pomona College | Claremont, CA
Computer Science (Asian Studies minor) | *Summa cum laude* | GPA: 3.99

Research

Aug 2022 – present

Graduate Research Assistant
School of Interactive Computing, Georgia Tech | Atlanta, GA

May 2020 – Dec 2021

Research Assistant
Department of Computer Science, Pomona College | Claremont, CA

- Worked under Dr. Alexandra Papoutsaki on developing WebGazer, a webcam gaze prediction app
- Created data collection/analysis pipeline for user study in collaboration with University of Central Florida
- Integrated TensorFlow Facemesh face tracking; built prediction accuracy test suite in JS

May 2021 – Aug 2021

Visiting Research Assistant
Brown HCI Lab, Brown University | Providence, RI (remote)

- Continued development of a robust error testing pipeline for gaze prediction accuracy on Brown HCI's WebGazer, under guidance of Dr. Jeff Huang
- Integrated Google MediaPipe for biometrics on Portal-ble, a mobile AR app in Unity, working with Jing Qian

Jul 2019 – Aug 2019

Summer Research Intern
IoX Center, National Taiwan University | Taipei, Taiwan

- Worked on 2 new VR haptic accessories under Dr. Hsin-Ruey Tsai and Dr. Robin Bing-Yu Chen, FrictShoes and GuideBand, with latter published to CHI 2021
- Programmed state of the art Arduino comparison prototype for vibrotactile arm guidance and VR test scenarios in Unity/C#

May 2019 – Jul 2019

Undergraduate Research Intern
Kōgakuin University | Tokyo, Japan

- Implemented live camera object detection with TensorFlow in Python, on a Raspberry Pi that communicates with linked microcontrollers (GR-PEACH) via I2C protocol for a microcontroller-based path guidance robots

May 2018 – Aug 2018

Research Assistant
Stanford University Asia-Pacific Research Center | Stanford, CA

- Conducted archival research on electoral malfeasance in White Terror-era Taiwan, the Taiwanese Central Election Commission, and indigenous land rights in Japanese-occupied Taiwan with Dr. Kharis Templeman

Publications

- 2024 Rijul Magu, Nivedhitha M. Kumar, Yihe Liu, **Xander Koo**, Diyi Yang, Amy Bruckman. Understanding Online Discussion Across Difference: Insights from Gun Discourse on Reddit. *Accepted and forthcoming at CSCW 2024.*
- 2024 K.J. Kevin Feng, **Xander Koo**, Lawrence Tan, Amy Bruckman, David W. McDonald, Amy X. Zhang. [Mapping the Design Space of Teachable Social Media Feed Experiences](#). *Accepted and forthcoming at CHI 2024.*

2021 Hsin-Ruey Tsai, Yuan-Chia Chang, Tzu-Yun Wei, Chih-An Tsao, **Xander Koo**, Hao-Chuan Wang, Bing-Yu Chen. [GuideBand: Intuitive 3D Multilevel Force Guidance on a Wristband in Virtual Reality](#). *CHI 2021*.

Teaching

Teaching Assistantship

Fall 2023 CS 6470: Design of Online Communities
Instructor: Dr. Amy Bruckman | College of Computing, Georgia Tech

Summer 2023 CS 6750: Human-Computer Interaction (Online)
Instructor: Dr. David Joyner | College of Computing, Georgia Tech

Fall 2019 CS 62: Data Structures and Advanced Programming
Instructor: Dr. Alexandra Papoutsaki | Department of Computer Science, Pomona College

Spring 2019 CS 62: Data Structures and Advanced Programming
Instructor: Dr. William Devanny | Department of Computer Science, Pomona College

Fall 2018 CS 51: Introduction to Computer Science, Java
Instructor: Dr. Yuqing Melanie Wu | Department of Computer Science, Pomona College

Industry

May 2021 – Aug 2021 Software Developer Intern
IBM Cloud Key Protect | Austin, TX (remote)

- Built Slack bot to aid Key Protect developers by automating daily compliance tasks, now used daily by 50+ developers
- Collected feedback from and met with developers to iteratively polish bot design/functionality before launch
- Implemented regional service instance control with Golang and PostgreSQL for Key Protect clients

Leadership

Sep 2018 – Dec 2021 President/Officer, 5C Freestylin' Collective
Claremont Colleges | Claremont, CA

Sep 2018 – Dec 2021 President/Officer, Taiwanese American Student Association
Claremont Colleges | Claremont, CA

Honors

2022 Alternate Candidate, Fulbright U.S. Student Scholarship (Japan)

2020 Inductee, Phi Beta Kappa Society

2020 – 2021 Tapia Conference Scholar

2017 – 2021 Pomona Scholar Award (awarded for 7 semesters)

Skills

Programming

JavaScript · Java · Python · Golang · C# · C++

Other

Git · Bash · HTML/CSS · LaTeX · Unity · PostgreSQL · Tensorflow · Raspberry Pi · Arduino

Languages

English · Mandarin Chinese (bilingual fluency) · Japanese (professional proficiency)