# KATE GLAZKO

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## EDUCATION

**University of Washington** *Expected 2028*
Ph.D. in Computer Science
*Advised by Dr. Jennifer Mankoff*

**University of Southern California** *Graduated May 2020*
M.S. in Computer Science

**University of Southern California** *Graduated August 2016*
B.S. in Computer Science, B.S. in Business Administration

## PUBLICATIONS

### Conference Papers

· [C.6] **Glazko, K.**, Portnova-Fahreeva, A., Mankoff-Dey, A., Psarra, A., Mankoff, J. (2024). Shaping lace: Machine embroidered metamaterials. In *SCF '24: Proceedings of the 9th ACM Symposium on Computational Fabrication* . (pp. 1 - 12).

· [C.5] **Glazko, K.**, Mohammed, Y., Kosa, B., Potluri, V., Mankoff, J. (2024). Identifying and Improving Disability Bias in GAI-Based Resume Screening. In *Proceedings of the 2024 ACM Conference on Fairness, Accountability, and Transparency (FAccT '24)*. (pp. 687 - 700).

· [C.4] Kawakami, A., Guerdan, L., Cheng, Y., **Glazko, K.**, Lee, M., Carter, S., ... Holstein, K. (2023). Training Towards Critical Use: Learning to Situate AI Predictions Relative to Human Knowledge. In *Proceedings of The ACM Collective Intelligence Conference* (pp. 63-78).

· [C.3] **Glazko, K.**, Yamagami, M., Desai, A., Mack, K., Potluri, V., Xu, X., Mankoff, J. (2023). An Autoethnographic Case Study of Generative Artificial Intelligence's Utility for Accessibility. In *Proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility* (pp. 1-8).

· [C.2] Chen, F., Hong, MK., Denoue, L., **Glazko, K.**, Chen, Y., Klenk, M. (2023). CodeML: A Machine Learning-Assisted User Interface for Code Identification and Labeling. In *Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems* . (pp. 1-7).

· [C. 1] Murnane, E., **Glazko, Y (K).**, Costa, J.M., Michel, M., Yao, R., Zhao, G., Hanlon, M., Duggan, P. Nickell, M., Zahrt, O., Moya, P., Crum, A., Landay, J.A. (2023). Can narrative-based feedback shape mindset and sustain behavior change? A field trial of the WhoIsZuki system. In *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies 7(1) 2023* (pp. 1-36).

### Book Chapters

· [B. 1] Fan, D., **Glazko, K.**, Follmer, S. (2022). Accessibility of Linked Node Diagrams on Collaborative Whiteboards for Screen Reader Users: Challenges and Opportunities. *Design Thinking Research* (pp. 97-108).

### Demos and Posters

- [P. 1] Shamma, D. A., Lee, M. L., Filipowicz, A. L., Denoue, L., **Glazko, K.**, Murakami, K., Lyons, K. (2022). EV Life: A Counterfactual Dashboard Towards Reducing Carbon Emissions of Automotive Behaviors. *In 27th International Conference on Intelligent User Interfaces* (pp. 46-49).

### Workshop Papers

- [W. 4] **Glazko, K.\***, Arugunta, A.*, Chan, J.*, Jimenez-Garcia, N.*, Sharmin, T.*, Mankoff, J.* (2024). Case Study of GAI for Generating Novel Images for Real-World Embroidery. *ACM CHI 2022 Workshop on AI-Generated Characters: Putting Deepfakes to Good Use.*

- [W. 3] **Glazko, K.**, Zheng, R. (2022). Designing for Assistive Self-Visualization. *ACM CHI 2022 Workshop on AI-Generated Characters: Putting Deepfakes to Good Use.*

- [W. 2] Kawakami, A., L. Guerdan, Y. Cheng, A. Sun, A. Hu, **K. Glazko**, N. Arechiga, M. Lee, S. Carter, H. Zhu, K. Holstein. (2022). Towards a Learner-Centered Explainable AI. *ACM CHI 2022 Workshop on Human-Centered Explainable AI (HCXAI).*

- [W. 1] Arechiga, N., F. Chen, R. Iliev, E. Sumner, S. Carter, A. Filipowicz, N. Bravo, M. Van, **K. Glazko**, K. Murakami, L. Denoue, C. Hogan, K. Sieck, C. Wu, K. Lyons. (2022). Understanding and Shifting Preferences for Battery Electric Vehicles. *AAAI 2022 Workshop on AI for Behavior Change (AI4BC), 2022.*

## ACADEMIC RESEARCH EXPERIENCE

**University of Washington** — April 2023 - Present
*PhD Student- Make4All* — Seattle, WA

- Led a autoethnography on generative AI and its opportunities for and barriers to accessibility, published at ASSETS 2023. The research was presented by PI Mankoff at Github Universe, an industry conference attended by thousands of developers– as well as by myself at the Allen School CSE Affiliates Day.
- Current research includes investigating novel interactive interfaces and enhancements to existing tools for (1) generative AI for design of tangibles and fabrication, (2) approaches to using generative AI for broadening access to complex written materials, and (3) reducing disability bias in generative AI that can have a material impact on equity and opportunity. Namely, all of this work focuses on understanding if we can consistently improve GAI performance in domains where there are real-world constraints and build in mechanisms for validation/assessment of outputs that are accessible to all.

**Stanford University** — November 2020 - Present
*Researcher- IxD Group* — Stanford, CA

- Research team member of the Who-Is-Zuki/Perfecto Projects, a mobile health app with a narrative focus, under the leadership of Dr. James Landay and Dr. Elizabeth Murnane.
- Led a successful grant application for the American Diabetes Association, securing $600,000 over three years for the Perfecto Project, a version of Zuki centering the experiences and stories of Mexican-Americans.
- Analyzed data and contributed to a paper on the Zuki Longitudinal Study, accepted to IMWUT 2023.
- Trained two new Android developers who made significant contributions to the app's code.
- In preparation for the launch of Perfecto, headed an overhaul of the app's engineering and updated its user interface to Material Design, aligning it with other mobile health apps in design standards. Enhanced app accessibility by auditing for color and font size.
- Implemented features for tracking sustainable behaviors and initiated the Zuki for Eco Behavior Change Study, including conducting preliminary interviews.

**Stanford University**                                    November 2021 - January 2023
*Researcher- Design Lab*                                              *Stanford, CA*

· Along with Danyang Fan and Dr. Sean Follmer, contributed to a book chapter written on the project's focus group and feedback sessions with visually-impaired individuals which published in Hasso Plattner's Design Thinking Research, Volume 12.
· Stemming from a project started in a graduate-level data visualization class, collaborated with Ph.D. student Danyang Fan to iteratively design and prototype an accessible method for traversing digital graphs.
· Led the engineering efforts for building a spatial-audio augumented experience for traversing a web-based flowchart.

**USC Human Robot Interaction Lab**                             June 2012 - July 2013
*Undergraduate Researcher- HRI*                                   *Los Angeles, CA*

· Worked with Ph.D. student Jill Greczek and Dr. Mataric at the Human-Robot Interaction Lab.
· Assisted the main researcher, Jill Grezcek, in running human-robot interaction experiments with autistic students at LAUSD schools.
· Analyzed the outcomes of the experiments, writing a Python script to compare the students' gestures captured on a Kinect to those given to them by a human or a robot.
· Created data visualizations and analysis for an NSF grant application for continued funding.

**CSSavvy at Viterbi School of Engineering**                   June 2012 - August 2012
*Undergraduate Researcher- RoboticsEd*                            *Los Angeles, CA*

· As a researcher at Dr. Sheila Tejada's CS Savvy Lab, I researched and designed an accessible curriculum for freshmen to learn robotics that was used in the following years' introductory level CS classes.
· My team and I designed an interaction toolkit for programming the Pleo robot through C++.

## AWARDS AND HONORS

[**2023**] **UW Allen School CSE Research Fellowship** 50% fellowship funding for Year 1.

[**2022**] **Tom Wilson Leadership in Disability Award (Finalist)** One of 3 selected finalists.

[**2021**] **NSF CSGrad4US Fellowship** $34,000 for 3 years with an addition $12,000 per year for COE.

[**2020, 2018**] **DEN@Viterbi Scholarship** $8,592 per semester.

[**2018**] **Michael Yasick ADHD Scholarship by Shire** (2.7%) $2,000 award.

[**2015**] **Best Overall, Google Hackathon at WE15**

[**2015**] **National Academy of Engineering Grand Challenges Scholar**

[**2015**] **USC Honors in Multimedia Scholar**

[**2015**] **1st Place, USA SS12 Hackathon by ProjectPossibility at CSUN Assistive Technology Conference**

## TEACHING EXPERIENCE

**USC Viterbi School of Engineering**                       August 2013 - December 2013
*ENGR 102 Freshman Academy Coach*                                 *Los Angeles, CA*

· Served as a class assistant and upper division engineering student mentor to first-year engineering students.

## SPEAKER EXPERIENCE

### Industry Conferences

· Speaker, *Firefox Nightly: Where The Magic Happens.* Grace Hopper Conference (Orlando, Florida), 2017.

### Invited Talks

· Speaker, *Disability and Accessibility in the Age of Generative AI* ADP, 2024.
· Speaker, *AI and Accessibility* AiiCE Accessibility Meeting, 2024.
· Speaker, *AI and Accessibility.* T-Mobile AI and Accessibility Conversation, 2023.
· Speaker, *AI and Accessibility.* AccessComputing Monthly Meeting, 2023.

## ACADEMIC SERVICE

### Conference Reviewing

· Student Scholarship Reviewer, TAPIA 2022.

## DEI SERVICE

### DEI Panels

· Panelist, GEAR Panel/PhD Virtual Information Session, 2023.
· Panelist, Why Go To Graduate School? CMD-IT, 2023.
· Panelist, Neurodiversity Panel at The Bush School, 2023.

## NEWS AND OTHER COVERAGE

[2024] Gus Alexiou, Forbes, ChatGPT Is Biased Against Resumes Mentioning Disability, Research Shows

[2024] Amanda Heidt, Nature, 'Without these tools, I'd be lost': how generative AI aids in accessibility

[2023] Stefan Milne, UW News, Can AI help boost accessibility? These researchers tested it for themselves

[2022] Dominic Lees, The Conversation, Deepfakes are being used for good – here's how

[2015] Ali Mar, The Daily Trojan, Students develop app for the visually impaired

[2015] Pragmatic@QMO, Mozilla, Yekaterina Glazko: techie, learner, and adventurer

## INDUSTRY FULL-TIME EXPERIENCE

**NeuroSmart**      January 2023 - August 2023
*Research Scientist*      *San Francisco, CA*

· Worked on a novel wearable and mobile tech for law enforcement de-escalation training.
· Performed a mix of research, Android development, user experience design, and testing duties.

**Toyota Research Institute**      August 2021 - August 2022
*Research Software Engineer via HireArt.*      *Los Altos, CA*

· Collaborated with Ph.D. students Anna Kawakami, Luke Guerdan, and Professor Kenneth Holstein at CMU on a project bringing learner-centered AI to social worker training, featured in the Human-Centered Explainable AI at CHI'22.
· Worked with Dr. Ayman Shamma on a mobile-based approach to reducing carbon emissions behaviors by motor vehicle drivers, resulting in a demo paper published in IUI'22 Companion.

- Worked with Dr. Francine Chen and Dr. Laurent Denoue on designing and developing a human-AI interface to increase task completion efficiency, submitted to IUI'23

**Mozilla** January 2019 - June 2021
*Software Engineer, Mobile* *Mountain View, CA*

- Drove the development of complex, user-requested features such as the ability to manage Downloads in-browser for the Firefox for Android browser.
- Worked on user-facing features and design improvements such as improving the application's font themes, showing site certificates, and improving the accessibility experience.
- Ideated, prototyped, and presented multiple innovation projects including the new content bundling experience on FireTV that landed in the product and received positive reviews from customers.

**Bluescape** August 2017 - December 2018
*Product Manager* *San Carlos, CA*

- Led development teams working on developing mixed-media collaborative workspaces and interactive content APIs that allowed these workspaces to update dynamically and accept many forms of media files.
- Managed and launched the Bluescape Mobile and Bluescape for A.R. product lines.
- Ran lean user research experiments and feature prototype development with customers across industry sectors including government, entertainment, and education.
- Served as a liaison between the development team and one of our largest entertainment industry customers and assisted in securing a seven-figure contract renewal with them.

**Mozilla** January 2016 - April 2017
*Software Engineer, IoT* *Mountain View, CA*

- Developed and researched new IoT products with a focus on user benefit and privacy.
- Designed and researched an IoT wearable that allowed people with limited verbal and tactile abilities to communicate to others through their bracelet with simple taps and an LED display.
- Was a founding member on a team that designed a mixed-reality physical board game that could connect elders in nursing homes to game night at home.
- Designed the quadrotor control demo for Project Flyweb, a project allowing control of IoT devices directly from the browser in a secure way.

**StealthFly** January 2015 - July 2020
*Co-Founder* *Los Angeles, CA*

- Collaboratively designed StealthFly, the first runner-style game for BLV audiences and prepared for the finals held at the CSUN Accessibility Conference by testing the game with low-vision participants at USC and incorporating their feedback.
- Presented the prototype and research methods at the SS12 USA Hackathon, where a panel of experts in the accessibility field judged our game and awarded us 1st place.
- Iterated on additional feedback that we had received at the conference and published our app to iOS and Android where we acquired more than 1,000 paying customers and were featured positively on an iOS accessibility app review site.

## INDUSTRY INTERNSHIP EXPERIENCE

**Mozilla** June 2015 - August 2015
*Release Management Engineering Intern* *San Francisco, CA*

- Re-designed and developed new front-end for Firefox Release Notes, which is a high-traffic page viewed by thousands of users.

**Mozilla**                                                  May 2014 - August 2014
*Mobile Q.A. Engineering Intern*                              *Mountain View, CA*

· Created a Selenium Python/JS automated test suite for Firefox OS's Find My Device application which enabled several critical bugs to be caught before being released into production.
· Wrote 2 different developer tools Firefox OS applications that were featured in the app store and received more than 400 downloads.

**DreamWorks Animation**                                     January 2014 - May 2014
*Platform Operations Engineering Intern*                     *Glendale, CA*

· Converted DevOps' manual method of tracking device storage into an automated dashboard using HTML/CSS/Python Flask which resulted in a 10x faster process for finding out which VM is performing which tasks.

**ReachLocal**                                               July 2012 - December 2012
*Software Engineering Intern*                                *Woodland Hills, CA*

· Created new automated tests with Selenium and Python and integrated them into a distributable, Java-compatible module with Maven and Jython.

**Apple**                                                    January 2012 - December 2013
*Campus Rep*                                                 *Los Angeles, CA*

· Partnered with the bookstore to drive sales during large events such as freshman orientation and homecoming.
· Created a new program for marketing Apple products to engineering majors which increased penetration of products to engineering school at USC by ~200%.

## OTHER ACTIVITIES

**Huskies for Neurodiversity**                               September 2023 - Current
*Leadership Team Member*                                     *Seattle, WA*

· Working with the organization to bring awareness to educators and faculty on the needs of neurodiverse students.
· Volunteering at social events such as incoming student days to build neurodivergent community at UW.

**Bair Island Aquatic Center**                               July 2017 - April 2023
*Novice Crew Team Member*                                    *Redwood City, CA*

· Trained and competed for the novice crew team.
· Was nominated and voted by the members of the club to receive the Rising Star award in 2018 for significantly improving my fitness and rowing technique.
· Participated in volunteering efforts for supporting local homeless communities, local environmental clean-ups, and fundraising to support adaptive and accessible rowing for disabled rowers and veterans.

**Westside German Shepherd Rescue**                          September 2014 - December 2015
*Dog Walker*                                                 *Los Angeles, CA*

· Walked German Shepherds awaiting adoption multiple times a week.
· Introduced prospective adopters to dogs ready for adoption.

**USC Aerial Robotics Team**                                 January 2012 - August 2014
*Software Team Member, President*                            *Los Angeles, CA*

· Worked with a group of students to design, build, and program an autonomous quadrotor with capabilities of wall detection, path following, and object location and retrieval.

**Alpha Chi Omega**                                      October 2011 - May 2015
*Member*                                                      *Los Angeles, CA*

· Volunteered for organizations focused on assisting survivors of domestic abuse. Participated in outreach and fundraising events for the Good Shepherd Shelter, a local home for women and children who have endured domestic abuse.