RACHEL L. FRANZ

franzrac@uw.edu / rachelfranz.com

EDUCATION

2024 (expected) **University of Washington, Seattle, WA**
PhD Information Science,
Concentration: Human-Computer Interaction, Accessibility, Virtual Reality
Advisor: Prof. Jacob O. Wobbrock

2017 **University of Toronto, Toronto, ON**
MSc Computer Science, 2017
Concentration: Human-Computer Interaction
Advisors: Prof. Khai Truong and Prof. Ron Baecker

2013 **Carnegie Mellon University, Pittsburgh, PA**
BHA (Bachelors of Humanities and Arts), 2013
Major in Human-Computer Interaction
Concentration: Cognitive Science and Architecture, Cum Laude

RESEARCH ASSISTANTSHIPS AND INTERNSHIPS

Jun-Sep 2022 **Research Intern, Apple, Seattle, Washington**
Designed and implemented an augmented reality mobile application that enabled people with vision impairments to author augemented reality environments

Jun-Sep 2021 **Research Intern, Adobe, San Jose, California**
Designed and implemented a graphics shader that made virtual environments accessible for virtual reality users with color vision deficiency

Jan-Jul 2020 **Part-Time Researcher, Microsoft Research, Redmond, Washington**
Designed an accessible VR scene viewing technique for people with motor impairments

Jun-Sep 2019 **Research Intern, Microsoft Research, Redmond, Washington**
Designed accessible VR interaction techniques for people with motor impairments

2018 **Research Assistant, University of Washington**
Led a research project investigating older adults' adoption of smart device accessibility features

2014-2015 **Research Assistant, Technologies for Ageing Gracefully lab (TAGlab), University of Toronto**
Worked on a research team to conduct two large deployment studies in long-term care facilities

May-Aug 2012 & 2013 **Research Intern, SIFT, Minneapolis, MN**
Designed the interface for a comic book creation game for veterans with PTSD

AWARDS AND HONORS

Mar 2021 **2021 Facebook Fellowship Awardee, AR/VR Future Technologies Team, Facebook**
Declined due to accepting Apple fellowship; award included 2 years of funding to work on projects to make VR accessible for people with motor impairments

Mar 2021 **2021 Apple Scholar, Apple Scholars in AI/ML PhD fellowship program, Apple**
1 of 15 recipients of the 2021 Apple Scholars in AI/ML PhD fellowship; awarded 2 years of funding to make VR accessible for people with motor impairments

Dec 2020 **Facebook Reality Labs Research Fund, Facebook**
1 of 8 proposals chosen for a $75,000 grant towards making VR accessible to people with motor impairments

Apr 2017 **Honorable Mention, NSF Graduate Fellowship Research Program**
National Science Foundation

| Oct 2017 | **National Finalist, AGEWELL and Hacking Health National Ideathon Competition** |
| | AGEWELL Annual Conference, Selected as one of seven finalists in national competition to design technologies for seniors |

| Nov 2012 | **Recepient of the Small Undergraduate Research Grant (SURG)** |
| | Undergraduate Research Office, Carnegie Mellon University |

PATENTS

2023 Jose Ignacio Echevarria Vallespi, Rachel Franz, and Paul Asente. 2023. Partially texturizing color images for color accessibility. U.S. Patent Application No. 17/651,373.

PUBLICATIONS

CONFERENCE PAPERS

2023 **Rachel L. Franz**, Jinghan Yu, Jacob O. Wobbrock. 2023. Comparing locomotion techniques in virtual reality for people with upper-body motor impairments. ASSETS 2023. 1-14.

2023 **Rachel L. Franz**, Sasa Junuzovic, Martez Mott. 2021. Nearmi: A framework for designing point of interest techniques for VR users with limited mobility. ASSETS 2021. 1-14.

2021 Jaisie Sin, **Rachel L. Franz**, Cosmin Munteanu, and Barbara Barbosa Neves. 2021. Digital Design Marginalization: New perspectives on designing inclusive interfaces. CHI 2021. 1–11.

2019 **Rachel L. Franz**, Jacob O. Wobbrock, Yi Cheng, Leah Findlater. 2019. Perception and adoption of mobile accessibility settings by older adults experiencing ability changes. ASSETS 2019. 267-278.

2019 **Rachel L. Franz**, Leah Findlater, Barbara Barbosa Neves, and Jacob O. Wobbrock. 2019. Gender and help seeking by older adults when learning new technologies. Proceedings of ASSETS 2019. 136-142.

2018 Dhruv Jain, **Rachel L. Franz**, Leah Findlater, Jackson Cannon, Raja Kushalnagar, and Jon Froehlich. 2018. Towards accessible conversations in a mobile context for people who are deaf and hard of hearing. Proceedings ASSETS 2018. 81-92.

2015 Barbara Barbosa Neves, **Rachel L. Franz**, Cosmin Munteanu, Ronald Baecker, and Mags Ngo. 2015. "My hand doesn't listen to me!": Adoption and evaluation of a communication technology for the 'oldest old'. In proceedings of CHI 2015. 1593-1602.

2013 Nikola Banovic, **Rachel L. Franz**, Khai N. Truong, Jennifer Mankoff, and Anind K. Dey. 2013. Uncovering information needs for independent spatial learning for users who are visually impaired. Proceedings of ASSETS 2013. 1-8.

JOURNAL ARTICLES

2023 **Rachel L. Franz**, Sasa Junuzovic, Martez Mott. 2023. A Virtual Reality Scene Taxonomy: Identifying and Designing Accessible Scene-Viewing Techniques. ACM Transactions on Computer-Human Interaction (To appear). 1-37.

2019 Barbara Barbosa Neves, **Rachel L. Franz**, Rebecca Judges, Christian Beermann, and Ron Baecker. 2019. Can digital technology enhance social connectedness amongst older adults? A feasibility study. Journal of Applied Gerontology 38 (1), 49-72.

2018 **Rachel L. Franz**, Ron Baecker, and Khai N. Truong. 2018. "I knew that, I was just testing you": Understanding older adults' impression management tactics during usability studies. ACM Transactions on Accessible Computing 11 (3), Article 15. 1-23.

2018 Barbara Barbosa Neves, **Rachel L. Franz**, Cosmin Munteanu and Ron Baecker. 2018. Adoption and feasibility of a communication app to enhance social connectedness amongst frail institutionalized oldest old: an embedded case study. Information, Communication & Society. 21 (11), 1681-1699.

BOOK CHAPTERS

2019 **Rachel L. Franz** and Barbara Barbosa Neves. 2019. Usability is ageless: Conducting usability tests with older adults. Ageing and Digital Technology. 99-114.

| 2019 | **Rachel L. Franz**, Barbara Barbosa Neves, Carrie Demmans Epp, Ronald Baecker, and Jacob O. Wobbrock. 2019. Why and how think-alouds with older adults fail: Recommendations from a study and expert interviews. Perspectives on Human-Computer Interaction Research with Older People. 217-235. |

WORKSHOP PAPERS

| 2018 | **Rachel L. Franz**, Leah Findlater, and Jacob O. Wobbrock. 2018. Lost in transition: The importance of conceptualizing aging as a process in accessibility research. In Workshop on "Designing Interactions for the Ageing Populations" CHI 2018. 53–58. |
| 2015 | **Rachel L. Franz**, Cosmin Munteanu, Barbara Barbosa Neves, and Ronald Baecker. 2015. Time to retire old methodologies? Reflecting on conducting usability evaluations with older adults. Proceedings of MobileHCI 2015. 912-915. |

POSTER PAPERS

| 2019 | **Rachel L. Franz**, Leah Findlater and Jacob O. Wobbrock. 2019. Just ask me: Comparing and older adults' knowledge of their optimal touchscreen target sizes. Proceedings of ASSETS 2019. 591-593. |
| 2014 | **Rachel L. Franz**, Siyan Zhao, and Roberta Klatzky. 2014. Investigating the accuracy of mental representations of tactile maps. Stanford Undergraduate Psychology Conference. |

TEXTBOOKS

| 2017 | Amy J. Ko and **Rachel L. Franz**. 2017. Design Methods. |

TEACHING

| Fall 2014, Sep 2015-Apr 2017 | **Teaching Assistant, University of Washington, Seattle, Washington**
Courses: Design Thinking, Master's Capstone, Master's Research Methods, Front-End Web Development, and Information Systems Design and Analysis |
| Sep 2017-2021 | **Teaching Assistant, University of Toronto, Toronto, Canada**
Courses: The Design of Interactive Computational Media, Programming on the Web |

SERVICE

2016, 2018-2020	**Reviewer: ASSETS, CHI, TACCESS**
Apr 2018	**Technology Assistant, Merrill Gardens, Seattle, Washington** Volunteered for a technology assistance group to introduce older residents to novel technologies and assist with technology-related issues
Apr-Aug 2017	**Christie Gardens Technology Office Hours Founder and Organizer, Toronto, ON, Canada** Organized a group of volunteers from the University of Toronto to provide technology assistance to older adult residents of Christie Gardens Retirement Home
Apr-Jun 2017	**Teaching Assistant, Bernard Betel Centre, Toronto, ON, Canada** Volunteered as a teaching assistant for a course on social media and web search at a senior center