# Junhan Kong Curriculum Vitæ

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### **BIO**

Junhan "Judy" Kong is a 4th-year PhD candidate in the Information School at the University of Washington. She is advised by Prof. Jacob O. Wobbrock and is a member of the ACE Lab and the DUB Group. She obtained her bachelor's and master's degrees in computer science from Carnegie Mellon University with an additional major in human-computer interaction (HCI) and minors in statistics and machine learning. Her research interest generally lies in the areas of HCI and accessibility. Her work seeks to enable computer technologies to understand the varying abilities of their users, and to design, implement, and evaluate AI-powered tools to make technologies accessible by adapting to these abilities.

# **EDUCATION**

University of Washington, Seattle WA

Sep 2020 - Present

Ph.D. in Information Science Advisor: Jacob O. Wobbrock

Carnegie Mellon University, Pittsburgh PA

May 2019 - May 2020

Master of Science in Computer Science

Thesis: An Authoring Tool for Creating Interactive AR User Tutorials by Demonstration

Advisor: Jeffrey P. Bigham

Carnegie Mellon University, Pittsburgh PA

Aug 2015 - May 2019

Bachelor of Science in Computer Science

Additional major in Human-Computer Interaction, minors in Machine Learning and Statistics

### AWARDS AND HONORS

Adobe Research Intern Project Expo Winner, Adobe Intern Project Expo 2023

**Best Paper Nomination**, ASSETS 2022

Special Recognitions for Outstanding Reviews, CHI 2022, UIST 2023

Boeing Blue Skies Award: Game Changer, CMU Undergrad Research Symposium 2019

University Honors for Academic Excellence, Carnegie Mellon University

Best Educational App, TartanHacks 2017

Social Impact Prize, TartanHacks 2016

Dean's List, Carnegie Mellon University, School of Computer Science

Fall 2015, Spring 2017, Fall 2017, Spring 2018, Fall 2018

#### **PUBLICATIONS**

[7] **Junhan Kong**, Tianyuan Cai, Zoya Bylinskii. Improving Mobile Reading Experiences while Walking Through Automatic Adaptations and Prompted Customization. In The 36th Annual ACM Symposium on User Interface Software and Technology (UIST '23 Poster), October 29 - November 1, San Francisco, CA, USA. *(To Appear)* 

[6] Momona Yamagami, Alexandra A. Portnova-Fahreeva, **Junhan Kong**, Jacob O. Wobbrock, Jennifer Mankoff. How Do People with Limited Movement Personalize Upper-Body Gestures? Considerations for the

Design of Personalized and Accessible Gesture Interfaces. The 25th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '23), October 22-25, 2023, New York, NY, USA. (*To Appear*)



- [5] **Junhan Kong**, Mingyuan Zhong, James Fogarty, Jacob O. Wobbrock. Quantifying Touch: New Metrics for Characterizing What Happens *During* a Touch. In The 24th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '22), October 23–26, 2022, Athens, Greece. Association for Computing Machinery, New York, NY, USA. https://doi.org/10.1145/3517428.3544804. *Best Paper Nominee*
- [4] **Junhan Kong**, Dena Sabha, Jeffrey P. Bigham, Amy Pavel, Anhong Guo. 2021. TutorialLens: Authoring Interactive Augmented Reality Tutorials Through Narration and Demonstration. In Symposium on Spatial User Interaction (SUI '21). Association for Computing Machinery, New York, NY, USA, Article 16, 1–11. https://doi.org/10.1145/3485279.3485289.
- [3] **Junhan Kong**, Mingyuan Zhong, James Fogarty, Jacob O. Wobbrock. 2021. New Metrics for Understanding Touch by People with and without Limited Fine Motor Function. In The 23rd International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '21 Poster). Association for Computing Machinery, New York, NY, USA, Article 80, 1–4. https://doi.org/10.1145/3441852.3476559.
- [2] **Junhan Kong**, Anhong Guo, Jeffrey P. Bigham. 2019. Supporting Older Adults in Using Complex User Interfaces with Augmented Reality. In The 21st International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '19 Demo). Association for Computing Machinery, New York, NY, USA, 661–663. https://doi.org/10.1145/3308561.3354593.
- [1] Anhong Guo, **Junhan Kong**, Michael Rivera, Frank F. Xu, Jeffrey P. Bigham. 2019. StateLens: A Reverse Engineering Solution for Making Existing Dynamic Touchscreens Accessible. In Proceedings of the 32nd Annual ACM Symposium on User Interface Software and Technology (UIST '19). Association for Computing Machinery, New York, NY, USA, 371–385. https://doi.org/10.1145/3332165.3347873.

# **PATENTS**

Anhong Guo, **Junhan Kong**, Michael Rivera, Frank F. Xu, Jeffrey P. Bigham. StateLens: A Reverse Engineering Solution for Making Existing Dynamic Touchscreens Accessible. U.S. Provisional Patent Application 19/207, filed June 6, 2019.

# PROFESSIONAL EXPERIENCE

# Research Scientist Intern, Adobe

Jun 2023 - Sep 2023

Investigated the impact of walking on mobile reading experiences, developed a system that provides automatic and customized reading adaptations to walking using smartphone built-in sensors. Winner of the Intern Project Expo (Research Org). Led to UIST poster [7] and paper submission (under review).

**Software Engineering Intern**, Google **Software Engineering Intern**, Jet.com

May 2018 - Aug 2018

Jun 2017 - Aug 2017

# **TEACHING**

### Instructor

UW INFO 498 Special Topics in Informatics: Accessibility

Spring 2024

#### **Teaching Assistant**

UW HCID 520 User Interface Software and Technology UW INFO 380 Information Systems Analysis and Design UW IMT 575 Data Science III: Scaling, Applications and Ethics

Winter 2023

Autumn 2020, 2022, 2023

Spring 2022

UW IMT 596 & 597 MSIM Capstone CMU 05-391 Designing Human-Centered Software CMU 15-122 Principles of Imperative Computation Winter 2021, Spring 2021 Fall 2017 - Fall 2019 Fall 2016 - Fall 2019

# SERVICE

### Reviewer

Special Recognitions: CHI 2022, UIST 2023

**ASSETS 2023 Posters and Demos** 

### **Organizing Committee**

ASSETS 2022 Web and Graphics Design Co-Chair UW DUB Doctoral Colloquium 2023 Coordinator

# **Undergraduate Activities**

CMU Undergraduate HCI Student Advisory Committee CMU Undergraduate Orientation Counselor

Sep 2018 - May 2019 Aug 2018

# **SKILLS**

**Programming Languages**: Python, C++, C, Java, Swift, Objective C, C#, F#, JavaScript, R, SQL **Tools & Platforms**: Git, Unity, ARKit, TensorFlow, AWS, OpenCV, CUDA, OpenMP, Hadoop, Spark **User-Centered Research**: contextual inquiry, heuristic evaluation, affinity diagramming, storyboarding and speed dating, surveys and interviews

Hardware Prototyping & Fabrication: Processing, Arduino, PCB design, 3D printing