Sohyeon Park

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INTERESTS

Human-Computer Interaction, Human-Centered Computing, Extended Reality, Accessibility

EDUCATION

Ewha Womans University, Seoul, South Korea

Mar 2016 - Feb 2021

- B.S. in Computer Science and Engineering, Magna cum laude
- Cumulative GPA: 3.82 / 4.30 (94.7%)

PUBLICATIONS

- [1] Sohyeon Park* (Main Presenter), Kyungyeon Lee*, Uran Oh. (2021) Designing Product Descriptions for Supporting Independent Grocery Shopping of People with Visual Impairments. In Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems [pdf] [presentation video]
- [2] Soobin Park*, SeungA Chung*, **Sohyeon Park**, Kyungyeon Lee, Uran Oh. (2021) Improving Meal-time Experiences of People with Visual Impairments In *Proceedings of the 18th International Web for All Conference* "Best Technical Paper" Nomination [pdf]
- [3] SeungA Chung, Kyungyeon Lee, <u>Sohyeon Park</u>, Uran Oh. (2021) Investigating Three-dimensional Directional Guidance With Nonvisual Feedback with Target Searching Task. In 2021 IEEE International Conference on Pervasive Computing and Communications Workshops and other Affiliated Events (PerCom Workshops) [pdf]

PREPRINTS & MANUSCRIPTS

- [4] Sohyeon Park, Kyulee Kim, Uran Oh. Understanding the User Preferences in the Types of Video Censorship. In preparation for: ACM International Conference on Interactive Media Experiences (IMX 2021) 2021 [pdf]
- [5] Sohyeon Park*, Kyulee Kim*, Uran Oh. Exploring Input Devices for Supporting Virtual Magnet Experiments for Third Grade Students. *In Progress*
- [6] Hwayeon Joh, Yunjeong Lee, Sohyeon Park, Uran Oh. Investigating Hand Gestures of People with Visual Impairments for Zoomable Image Searching Task in a Mobile Device. *In Progress*

RESEARCH EXPERIENCE

Research Assistant, Ewha Human-Computer Interaction Lab

Jun 2020 - Present

Supervised by Dr. Uran Oh

• Conducting research in human-computer interaction, accessibility, and extended reality (XR) in order to improve the assistance for marginalized people and improve the application of XR. This includes application areas in aiding visually impaired individuals ([1,2,3]), search behavior in virtual environments ([1,2]), and education ([5]).

Research Assistant, Ewha Computer Vision Lab

Feb 2019 - Dec 2019

Supervised by Dr. Dongbo Min

• Worked on creating a novel unsupervised deep learning model using Siamese Network and image warping to remove aliasing patterns in a screen captured image.

SELECTED PROJECTS

Virtual Science Lab, Ewha Human-Computer Interaction Lab

Jun 2020 - Present

- Currently implementing a virtual science lab to enable collaboration between teachers and students, while interacting with various science laboratory tools using Perception Neuron.
- A national project funded by the Ministry of Education.

Understanding the Effects of Physical Interaction Types and Distance on the Performance of Target Selection Task, Ewha Human-Computer Interaction Lab

Mar 2021 - Aug 2021

• Conducted behavioral log analysis to understand users' behavior and performance when selecting a target that varies in distance with hand- and body-based interaction in a mixed reality environment.

Mixed Reality Newspaper [demo1] [demo2]

Fall 2020

G17618 Special Topics in Human-Computer Interaction (Audit)

- Implemented a MR newspaper using Microsoft Hololens1 in order to provide newspapers for seniors who find it difficult to read digital news and to solve environment pollution.
- Combined the positive features of physical and digital newspapers to provide a friendly digitized newspaper for all ages of people.

Capstone Design (Graduation) Project [pdf]

Spring & Fall 2019

Supervised by: Dr. Dongbo Min

- Created an unsupervised deep learning model to remove aliasing patterns that occur when taking pictures of computer monitors using cellphones.
- Published a short paper on the Ewha academic journal.

Virtual Escape Room [demo]

Fall 2019

CS36510 Virtual Reality and Interaction Techniques

• Designed and developed a VR-based system where the user needs to escape a warehouse filled with toxin by solving puzzles in a limited time, using Google Cardboard and Unity.

WORK EXPERIENCE

AI Research Intern, Medicisoft

Mar 2020 - Aug 2020

- Designed and implemented a prediction model to identify the number of people from foreign countries that will be diagnosed with COVID-19.
- Developed and tested an AI recommendation system for suggesting personalized education modules in online math education platforms for the Ministry of Education in South Korea.
- Led a partnership contract with Megvii, an international AI related company in China.

QA Trainee, Ahnlab, Inc

Aug 2018 - Feb 2019

- Performed quality assurance testing on multiple operating systems such as Windows, Linux or Unix before introducing the new version of V3 products.
- Participated in developing QA automation system using Python.

Software Engineering Intern, LUXROBO

Jul 2017 - Aug 2017

• Invented and implemented various coding games for children that can be played with the company's product (MODI) using C.

Student Independent Research Competition 2nd Prize, Information Technology Research Center 2020

STUDENT	
VOLUNTEER	

ACM SIGACCESS Conference on Computers and Accessibility

Oct 2021

Human Computer Interaction Korea

Jan 2021

ACM Interactive Surfaces and Spaces Conference

Nov 2020

Honors & Awards

Kiho Lee Scholarship (Academic Excellence Scholarship), Ewha Womans University

Best Technical Paper Nomination, The 18th International Web for All Conference

2021

Outstanding Ewha Scientist Scholarship, Ewha Womans University

Spring & Fall 2021

Future Capability Development Scholarship, Ewha Womans University

2020

Student Research Grant, Information Technology Research Center

2020

2021

Outstanding Employee CEO Award, Medicisoft

2020

Dean's List, Ewha Womans University

Spring 2017, Spring 2018, Spring & Fall 2019

TEACHING EXPERIENCE

Teaching Assistant, Ewha Womans University

Mar 2021 - Jun 2021

CS10556 Fourth Industrial Revolution and Creative Convergence

- Instructor: Dr. Jaehee Yang, Dr. Hwanseung Yong
- Tutored basic Python and HTML programming for students.

SKILLS

Languages

• Korean (*native*), English (*proficient*)

Techniques Unity, Pytorch, Tensorflow, JAVA, C/C++, Python, HTML, CSS, Javascript, React Native