Dasom Choi

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RESEARCH INTEREST

Human-computer Interaction, Human-centered Design, Human-AI Interaction, AI Fairness, Assistive Technology

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)
Master of Science, Industrial Design *Aug. 2018 – Feb. 2021 (Expected)*
- Advisor: Professor **Sangsu Lee**
- Thesis: Designing Speech Rate in Conversational Agent for People with Vision Impairment

Ulsan National Institute of Science and Technology (UNIST)
Bachelor of Science, Industrial Design *Mar. 2013 – Feb. 2018*
- Interdisciplinary Major: Human Factor Engineering

PUBLICATION

Dasom Choi, Daehyun Kwak, Minji Cho, and Sangsu Lee. 2020. "Nobody Speaks that Fast!" An Empirical Study of Speech Rate in Conversational Agents for People with Vision Impairments. *In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems* (CHI 2020). [pdf]
Best Paper Honorable Mention (Top 5%)

Dasom Choi, Aikerim Orken, Han Lee, and Hwajung Hong. Designing a Crowdsourcing Platform for Generating Subtitles of Accessible Films. (HCI Korea 2017) [pdf]

WORK EXPERIENCE

Movable expanding negative pressure ward for infectious hospital services
Research Assistant, KAIST MCM Research Center *Sep.2020 - Dec.2020*
- Advisor: Professor **Tek-Jin Nam**
- Identified needs of several stakeholders through interviews and observations and designed stakeholder persona and journey. Based on these understanding, discovered systemic and empirical design elements that can be linked with existing medical resources and then derived expected user scenarios.

Interaction model for proactive AI agent
Research Assistant, Samsung Electronics *Aug.2019 - Dec.2019*
- Advisor: Professor **Sangsu Lee**
- Developed an interaction model and exploring design considerations for AI-based proactive conversational agents. Conducted design workshops and content analysis to examine major elements of proactive conversational agents.

Mobile platform for investment portfolio market
Research Assistant, NH Investment & Securities *Sep.2019 - Dec.2019*
- Advisor: Professor **Sangsu Lee**
- Designed a portfolio market application of stock investment service that encourages users to make continuous investments based on their interests. To extract design directions, we conducted a heuristic evaluation, user and expert interviews, and market research.

Mobile account opening system for stock investment
Research Assistant, NH Investment & Securities *Mar.2019 - July.2019*
- Advisor: Professor **Sangsu Lee**

- Identified the problems of the existing account opening process through heuristic evaluation, video ethnography, and think aloud. Based on these insights we proposed several design directions and designed mobile screens by reflecting those directions. The outcomes are actually applied to the current NH Investment Securities' mobile application 'Namu.'

Undergraduate Design Intern
Disegno T9 Lab, UNIST *Sep.2018 - Dec.2018*
- Advisor: Professor **Yunwoo Jeong**
- Participated in several design projects: visualization and modeling in 'Hybrid Module Mobility' (a four-wheeled electric bicycle with adaptable module system), visualization in 'Hyperloop Station' (a new transportation station with a dual rotating system which maximizes the efficiency), and concept development in 'Autonomous Mobility Concept Design' (a transformable interior design according to the purpose)

Undergraduate Research Intern
DxD (data, interaction, design) Lab, UNIST *Apr.2016 - Aug.2018*
- Advisor: Professor **Hwajung Hong**
- Developed a crowdsourcing platform that enables web users to produce descriptive captions of short movie clips for people with hearing impairments, and presented a paper at HCI Korea '17. Conducted user studies including observations and interviews in order to drive design considerations for the crowdsourcing platform.

Undergraduate Research Intern
Emotion Lab, UNIST *June.2015 - Aug.2015*
- Advisor: Professor **Chajoong Kim**
- Participated in design workshops, user tests, and qualitative data analysis for the project to explore future mobility trends.

TEACHING EXPERIENCE

System Design *2020 Spring*
Teaching Assistant, Course: ID403, KAIST
- Instructor: Professor **Sangsu Lee**
- Undergraduate course for industry-academic collaborative project based on the system-level design process. Providing feedback in the weekly group instruction session and comments on assignments; designing course materials; grading and assessment.

Interface Design *2019 Fall*
Teaching Assistant, Course: ID307, KAIST
- Instructor: Professor **Sangsu Lee**
- Undergraduate course for teaching basic knowledge, tools, and practical skills for interface design. Providing feedback in the weekly one-on-one instruction session; guiding individual project development; grading and assessment.

Portfolio and Exhibition Design *2019 Spring*
Teaching Assistant, Course: ID416, KAIST
- Instructor: Advisor **Jinha Seong**
- Undergraduate course to teach the organization process and skills for designing a portfolio.

HONORS AND AWARDS

Best Paper Honorable Mention *2020*
ACM Conference on Human Factors in Computing (CHI '20)

James Dyson Design Award National Winner *2019*
- Advisor: Professor **Sangmin Bae**
- A renowned international award to encourage young designers and engineers. *cash prize of USD 2,500* We proposed a 'reuse-it', a working prototype to make post-it

with scrap papers.

Spark Design Award, Finalist *2017*

- Advisor: Professor **Yunwoo Jeong**
- Won Finalist award in the transportation category of Spark Awards, an international modern design competition. We presented a 'Bik-E Auto,' a four-wheeled electric bicycle with adaptable module systems.

Major Research Achievements of KAIST *2020*
Korean Government Scholarship, KAIST, *2018 – 2021*
Korean Government Scholarship, UNIST, *2013-2017*

SERVICE

Peer Review *ACM Conference on Designing Interactive Systems (DIS '19)*

PRESS

A study on accessible speech rate of conversational agents for people with vision impairments in *KAIST College of Engineering News*, April 2020 [Link]

Dyson announces the domestic winner of the James Dyson Awards 2019 in *Seoul Finance and Newsis*, Sep. 2019 [Link]

RELEVANT COURSEWORK

Qualitative Design Methodology
User-centered Design Methodology, UX Design Research Methods, Design Communication, Special Topics 3 (Design & Business Sectors), Design Management

Human-Computer Interaction
Special Topics 2 (Human Automation Interaction), Design Research Topics

Prototyping
3D CAD & Prototyping, 3D Printing, Engineering Programming

Human Factor Engineering
Cognitive Engineering, Ergonomics, Color Science & Engineering

TECHNICAL SKILLS

Design Research Methods
Interviews, Focus groups, Participatory design, Content analysis, Heuristic evaluation, Ethnographic observation

Prototyping & Graphic Tools
Sketch, Figma, Adobe Illustrator, Adobe Photoshop, Adobe XD, Adobe Premiere pro, Solidworks, Autodesk Fusion 360, Rhino KeyShot, Arduino

Technical Tools
SPSS, Python, HTML, CSS