Yunkyung Kim

Mobile Phone: (617) 797-2233
E-mail: yunkim86@gmail.com
Portfolio Link: yunkimdesign.com

Address: 44 Rolling Ln
Chestnut Hill, MA 02467

About

Highly versatile UX/Human-Computer Interaction designer with 9+ years of both consumer goods and government contracting industry experience in state-of-the-art UX design for robotics/automation applications. Ph.D. in the department of industrial design in the engineering school, focusing on user-centered approach on human-robot/AI interaction. U.S. permanent resident.

Education

KAIST, Ph.D., Industrial Design — Daejeon, Korea
- Thesis title: Human-Robot Social Distance in Interaction Design for Robot Acceptance — *2/2008-2/2013*

Korea National Open University, Bachelor of Business Administration. Business Administration — Daejeon, Korea *3/2010-2/2013*

KAIST, Bachelor of Science., Industrial Design — Daejeon, Korea *3/2004-2/2008*

Honors & Awards

Winner, iF Design Award 2016 - Layered Surface, Transparent Mobile Phone UX — *2016*
https://ifworlddesignguide.com/entry/178038-layered-surface

Young Scientists Award, the 11th Korea Robotics Society Annual Conference — *2016*

Gold, iF Design Award 2015 - Bended Surface, Flexible Mobile Phone UX — *2015*
https://ifworlddesignguide.com/entry/149642-bended-surface

Work Experience

Principal UX Designer
Bedford, MA
iRobot Inc. *9/2020-Present*
- Develop user flow, robot behavior tree, and physical/digital UX design
- Work on UX design for new program development
- Closely collaborate with SW engineers, design researchers, data scientists, and customer care team through release train process from problem definition to getting customer feedback about implementation.

Senior Human Factors Engineer
Houston, TX
KBR Inc., Human Factors Engineering Lab., NASA Johnson Space Center *7/2019-9/2020*
- Led the operations team composed of UX designers, human factors engineers, and extravehicular activity experts.
- Developed concept of operations, UI design, and requirements for augmented reality system on a spacesuit helmet.
- Designed information architecture, wireframe, and UI prototype of the ground data system for monitoring swarm autonomous spacecraft.
- Developed user-centered requirements and assessments for virtual, augmented, and mixed reality

Computer Scientist IV
Mountain View, CA
SGT, Inc., Intelligent Robotics Group., NASA Ames Research Center *4/2016-7/2019*
- Led human-robot interaction design team for free-flying robots, Astrobee
- Developed non-verbal interaction for free-flying robots and its appearance design.
- Developed UX design for Web-based science exploration tool.
- Analyzed robotics allocation for high-fidelity Rover, K10

Senior User Experience Designer — Seoul, Korea
Corporate Design Center, SAMSUNG Electronics Co., Ltd. — *3/2013-3/2016*
- Led an agile design team composed of product/graphic/UX designers and sw developers.
- Developed UI/UX design for mobile phones with transparent and flexible display.
- Developed UX roadmap based on display technology and patents research.
- Designed user interface for the touch-gesture based gynecology ultrasound machine

Visiting Researcher — Madison, WI
Human-Computer Interaction Lab., Computer Science, University of Wisconsin-Madison. — *9/2011-12/2011*
- Advisor: Bilge Mutlu
- Developed social distance design between humans and robots and evaluated its impact on user acceptance of the robots.

Visiting Researcher — Moffett Field, CA
Intelligent Robotics Group, NASA Ames research center — *3/2011-8/2011*
- Advisor: Terry Fong
- Developed UX/UI for Exploration Ground Data System
- Suggested search UX design on map for Pavilion Lake 2011 exploration tool

Book Chapters

Cha, E., **Kim, Y.**, Fong, T., & Matarić J. M. (2018). A Survey of Nonverbal Signaling Methods for Non-Humanoid Robots, *Foundations and Trends in Robotics*, 6(4), 211-323.

Kim, Y., & Mutlu, B. (2014). How social distance shapes human-robot collaboration, *International Journal of Human-Computer Studies*, 72(12), 783-795

Kim, Y., Bae, J., Rhim, J., Lee, H., Ku, H., Jung, S., & Kim, M. (2013). The Effect of Interaction Modality for Facial-constrained Robots in Domestic Environment. *In: Proceedings of 16th ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW 2013)*, San Antonio, TX, U.S.A. 175-178.

Kim, M., Oh, K., Choi, J., Jung, J., and **Kim, Y**. (2011). Chapter 2. User-Centered HRI: HRI Research Methodology for Designers. In Wang, X. (Eds.), Mixed Reality and Human-Robot Interaction (Intelligent Systems, Control and Automation: Science and Engineering) New York: Springer.

Invited Talks

"User-centered Approach for Human-Autonomous System Interaction" — Seoul, Korea
Seoul National University, dept. of Industrial Engineering — *10/1/2019*

"Light Signal Design for Socially Situated Robots" — Tsukuba, Japan
The 9th International Conference on Social Robotics (ICSR), Workshop on Social Robot Intelligence for Social Human-Robot Interaction of Service Robots — *11/22/2017*

"Design Thinking" — Pohang, Korea
MAKERS: we are makers workshop — *2/2016*

"Subtle interaction in the Internet of Robotic Things" — Pyungchang, Korea
The 11th Korea Robotics Society Annual Conference 2016 — *1/2016*

"How robots can be with us" — Seoul, Korea.
PXD — *6/2014*

Selected Media / Press

"How to Operate Space Robots," Interview by Donga Science Magazine for Kids, vol 7 — *4/1/2019*

"Talk Silicon Valley - #2 Yunkyung Kim, Human-Robot Interaction Designer" — *9/19/2017*
Bay Area K Group

"How NASA's Astrobee Robot Is Bringing Useful Autonomy to the ISS" — *2/9/2017*
IEEE Spectrum

"The Era of Internet of Robotic Things" *11/20/2016*
Robot News

Skills

- Effective problem-solving, user-centered design, user study and critical-thinking skills
- Figma, Adobe CS, InVision, Microsoft Excel/ PowerPoint/Project, SPSS, dscout, MAXQDA, Survey Crafter expertise
- Have experience on programming languages (JavaScript, HTML), 3D tools (Blender, SolidWorks) and physical prototyping tool (Arduino)
- User research methods including contextual inquiry, observation, survey, ethnography, eye tracking, focus group, participatory design, usability lab studies.