Hyunyoung Kim

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USER RESEARCH/PHYSICAL INTERACTION SPECIALIST

Leverages interdisciplinary expertise on software/hardware/UX design to make meaningful human-computer interaction methods. Bachelor in computer science, experience in robotics club and Samsung strengthened 5 years of practical research experience, and enabled 7 publications and 6 patents. Master's thesis regards gestural interface on keyboard using IR-proximity sensors to accelerate command input and reduce the burden of command remembrance.

Education

KAIST (Korea Advanced Institute of Science and Technology), Daejon, South Korea   Feb 2009 – Feb 2011
Master of Science, Digital Media Program, Advisor: Minsoo Hahn, GPA: 3.27/4.3

Sungkyunkwan University, Suwon, South Korea   Mar 2004 – Feb 2009
Bachelor of Science, Computer Engineering, GPA: 3.93/4.5

Park University, MO, USA   Jan 2007 – May 2007
Transferred student

Professional Experience

Chonnam National University, Gwangju, South Korea   Nov 2014 – Current
Research Assistant, Human-Computer Interaction

Association for Vertical Farming, Munich, Germany   Dec 2013 – May 2014
Web Designer/Developer

Samsung Electronics, Suwon, South Korea   Feb 2011 – May 2013
UX Designer, User Research & UI Design, UX Center, DMC Research Centers

Samsung Software Membership, Seoul, South Korea   Jan 2010 – Dec 2010
Student Researcher, Interaction Design & Prototyping

KOREA MART, Japan   Jan 2006 – Feb 2006
Intern, Homepage & shopping mall development

Honors and Awards

Employee of Month, Samsung Electronics, 3 times	2011 – 2013
Korea National Robot Soccer Mirosot League, 3rd place, Korea Robot Soccer Association	Aug 2005
Champions League MiroSot Small League, 1st place, Kangnam University Korea	Feb 2005
National scholarship, KAIST	2009 – 2010
Four-years full scholarship based on Korean national scholastic achievement test	2004 – 2008
(1st grade/4%), Sungkyunkwan University	

Publications

Hyunyoung Kim, Jinsul Kim, A Study on Design and Needs of New Wearable Devices Using a Design Methodology, Proceedings of the 17th KKITS Spring Conference, Gwangju, South Korea, 2015 (Korean)

Sanghyun Park, Jisu Kim, **Hyunyoung Kim**, Jinsul Kim, Research on the Smart Wheelchair for User Stability Based on an Infrared Sensor, Proceedings of the 17th KKITS Spring Conference, Gwangju, South Korea, 2015 (Best Paper Award) (Korean)

Hyunyoung Kim, Changhee Cho, Jisu Kim, Sanghyun Park, Jinsul Kim, Kuinam J. Kim, Localizing a Flying Object on Target Place Using Heterogeneous Binary Sensors, ICMWT, Bangkok, Thailand, 2015

Hyunyoung Kim, Ilmin Kim, Jinsul Kim, Designing the Smart Foot Mat and Its Applications: as a User Identification Sensor for Smart Home Scenarios, The 6th 2015 International Interdisciplinary Workshop Series, HSST, Jeju, South Korea, 2015

Sanghyun Park, **Hyunyoung Kim**, Jinsul Kim, Taeksoo Ji, Myoung Jin Lee, A Novel Detection Method Integrating Hybrid Sensors for Motorized Wheelchairs, ICISA, Pattaya, Thailand, 2015

Hyunyoung Kim, Gesture-Recognition Interface with Keyboard Embedded IR Modules, Master's Thesis '11 *(Korean, Short description in English)*

Hyunyoung Kim, Kuenhwan Kwak, Jongwoo Jung, Insik Myung, Minsoo Hahn, Tablaction: collaborative brainstorming system with stylus-fingertip interactions on tablet PCs, VRCAI '10

Hyunyoung Kim, Donghoon Lee, Jeehyung Lee, Personalized Comment Spam Filtering Using Clustering, KIIS '08 *(Korean, Short description in English)*

Patents

Hyun-Young Kim, Hee-Won Jung, Device and method for transmitting electronic key thereof, US20140115493 A1

Hyun-Young Kim, Tae-hwan WI, Method and device for transmitting information related to event, US20140075329 A1

Hyun-Young Kim, Tae-hwan WI, User terminal device and system for performing user customized health management, and methods thereof, US20130268292 A1

Sung-Jin Park, **Hyun-Young Kim**, User terminal, external apparatus, data transceiving system, and data transceiving method, US20140128031 A1

Eun-young Lim, **Hyun-Young Kim**, Yeon-hee ROH, Joo-kyung Woo, Young-shil Jang, User terminal device for providing electronic shopping service and methods thereof, US20130332228 A1

Jae-Woo Ko, Tae-hwan WI, Hee-Won Jung, **Hyun-Young Kim**, Bo-seok MOON, Management server and method for controlling device, user terminal apparatus and method for controlling device, and user terminal apparatus and control method thereof, US20130268998 A1

Projects

Smart Textile as Wearable and 3D Interfaces   Chonnam National University
Exploring the capability of smart textiles as novel interfaces. Ideation,   Nov 2014 – Current

implementation, managing cooperative students.
Tools: Teensy, C#, Unity3D

Projectile detection on a target board   Chonnam National University
Implementing a shooting target scoring system using computer vision. Managing   Nov 2014 – Current
project and implementing.
Tools: C++, OpenCV

Research Proposal for Korean National Research Foundation: Research on   Chonnam National University
Heterogeneous Smart Wearable Devices Based Personal Sensor Cloud   Apr 2015 – Jul 2015
Technology
Cooperative research proposal among three universities – CNU, StonyBrook,
SUNY Korea. Outlined the proposal in Korean style, wrote CNU part, organized
meetings

Vertical Farming Website   Association for Vertical Farming
Website visual design and implementation for non-profit organization in Germany   Dec 2013 – Apr 2014

Samsung Smart Home   Samsung Electronics
Smart Home service & UI design. Part of the mobile and TV interfaces   Oct 2012 – May 2013
demonstrated at '13 IFA. The UX, harmonizing 3rd party products and worldwide
users was designed strategically based on the global user research and usability test.

Smart LED   Samsung Electronics
Sub-project of Smart Home. Managed project, defined requirements by discussing   Feb 2013 – May 2013
marketing specialists and engineers, and designed UX.

Mobile Ads & Commerce   Samsung Electronics
Samsung Wallet. Demonstrated at MWC '13. Designed UIs for merchants' part,   Apri 2012 – Sep 2012
managed card reader appcessory design, led user research.

Patenting Task Force   Samsung Electronics
Researching on the emerging technology, finding new business opportunities and   Dec 2011 – Apr 2012
patenting on related ideas. Consulting ideation process and developing patents with
patent specialists and engineers. Related patents are pending.

Medical Device & Service Design   Samsung Electronics
Performed a medical device design with IDEO and new business development   Aug 2011 – Nov 2011
division; Learned IDEO's research know-how in paired observation, interview, and
observational sharing.

Medical & Health service Patenting Task Force   Samsung Electronics
A TF patenting technologies and services regarding new medical and health services   Apr 2011 – Jul 2011
for Samsung's medical business opportunity. Organized TF, researched
background technologies and patented an idea.

Master's Thesis   KAIST
On-keyboard gesture recognition system using IR-proximity sensors. Designed   Dec 2009 – Dec 2010
interaction methods and gestures, implemented the system.
Tools: Arduino, C#

Digi-log Show Control System   Korea National University of Arts
Integrated show control system with physical & on-screen interfaces   Apr 2010 – Dec 2010
Tools: WPF

Jon-Ro Man-Machine Interface
                                                                                            Jong-ro Science
Quality Assurance   Jul 2009 – Oct 2009

Bachelor's Thesis
A personalized comment spam filtering, based on a hypothesis that criteria for spam   Sungkyunkwan University
are different among people. Generated ideas, implemented the system, collected   May 2008 – Nov 2008
data for comments.
Tool: Python

Other Research Experience

A pressure sensitive tablet and its practical uses, software implementation	2010
Yo! Run! – Mobile running assistant system using foot sensor and mobile application, user research and software implementation	2010
A remote music-controlling tumbler, implementation with Arduino and Processing	2009

Skills

General Skills	Creative and analytical thinking, communication skills
Languages & APIs	C++, C#, Matlab, Java, WPF, C, Vuforia, HTML, CSS, Javascript, MySQL, Windows Mobile, Google Map API, Jess
Development Tools	Visual Studio, Processing, Unity3D, Eclipse IDE, XCode
User Research	Usability test, task observation, survey design and analysis, ideation moderation, heuristic analysis, home visiting, user interview, GOMS, wizard of oz
UX Design	Scenarios, use cases, personas, wireframe, user flow, Axure, Omnigraffle, Balsamiq, Flowella
Visual Design	Illustrator, Photoshop
Engineering	Arduino, EagleCAD, circuit design, artwork

Teaching and Service

TA	C++ instruction for Bachelors	2015
Mentor	Women's science thesis competition for undergraduates and high school students	2011
Instructor	Designing circuits, basics from soldering to implementing, for undergraduate lab interns	2010
Instructor	Trends of human sensing technology, in course seminar	2008

Language Education

Rheinland Privatschule, Essen, Germany	Sep 2013 – Oct 2013
German Language Course	
HLI Liberty, MO, USA	Sep 2006 – Dec 2006
English Language Course	

Language Skills

English	Spoken and written proficiency in English (IELTS 7.5/ TOEFL 96/ TOEIC 935)
German	Basic grammatical and conversational knowledge of German
Korean	Native

References

Minsoo Hahn	Professor, KAIST	mshahn2@kaist.ac.kr
Jinsul Kim	Associate Professor, Chonnam National University	jsworld@chonnam.ac.kr
Sung Park	Expert UX Consultant, SK Telecom	spica7601@partner.sk.com
Changwon Kim	Assistant UX Designer, Samsung Electronics	changwon1.kim@samsung.com