Hyunsung Cho

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RESEARCH INTERESTS

Ubiquitous computing, context-aware computing, human-computer interaction, social computing

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST) *Mar. 2020 -*
Ph.D. candidate in Computer Science
Networking & Mobile Systems Lab. Advisor: Sung-Ju Lee

Korea Advanced Institute of Science and Technology (KAIST) *Mar. 2018 - Feb. 2020*
M.S. in Computer Science
Networking & Mobile Systems Lab. Advisor: Sung-Ju Lee

Korea Advanced Institute of Science and Technology (KAIST) *Aug. 2013 - Feb. 2018*
B.S. in Computer Science (Software Advanced Major)
Magna Cum Laude

PUBLICATIONS

Conference & Journal Papers

[c.3] I Share, You Care: Private Status Sharing and Sender-Controlled Notifications in Mobile Instant Messaging.
Hyunsung Cho, Jinyoung Oh, Juho Kim, and Sung-Ju Lee.
CSCW 2020: ACM Conference on Computer Supported Cooperative Work and Social Computing

[c.2] Knocker: Vibroacoustic-based Object Recognition with Smartphones.
Taesik Gong, **Hyunsung Cho**, Bowon Lee, and Sung-Ju Lee.
IMWUT (UbiComp) 2019: ACM Annual Conference on Interactive, Mobile, and Ubiquitous Technologies

[c.1] Intelligent Positive Computing with Mobile, Wearable, and IoT Devices: Literature Review and Research Directions.
Uichin Lee, Kyungsik Han, **Hyunsung Cho**, Kyong-Mee Chung, Hwajung Hong, Sung-Ju Lee, Youngtae Noh, Sooyoung Park, and John M. Caroll.
Ad Hoc Neworks Journal, Voulme 83, 2019

Posters, Demos, and Workshop Papers

[p.3] Sender-Controlled Mobile Instant Message Notifications Using Activity Information.
Hyunsung Cho, Jinyoung Oh, Juho Kim, and Sung-Ju Lee.
MobiSys 2019 Demos: ACM International Conference on Mobile Systems, Applications and Services

[p.2] Real-Time Object Identification with a Smartphone Knock.
Taesik Gong, **Hyunsung Cho**, Bowon Lee, and Sung-Ju Lee.
MobiSys 2019 Videos: ACM International Conference on Mobile Systems, Applications and Services
Best Video Award

[p.1] Identifying Everyday Objects with a Smartphone Knock.
Taesik Gong, **Hyunsung Cho**, Bowon Lee, and Sung-Ju Lee.
CHI 2018 Extended Abstract: ACM Conference on Human Factors in Computing Systems

WORK EXPERIENCE

KAIST Networking and Mobile Systems Lab (NMSL), Daejeon, South Korea *Mar. 2017 - Present*
Research Assistant
Advisor: Sung-Ju Lee. Research on novel applications of mobile sensing for context-aware services.

Kiswe Mobile Inc., New Providence, NJ, USA *Jun. 2017 - Aug. 2017*
Web Frontend Developer

Developed a trivia widget for interactive mobile sports streaming service. The widget was included in the live service for the IAAF Diamond League event in collaboration with VRT Sporza. The service was covered in press. Developed tools to support video streamers such as a multi-view layout editor for multi-cam videos; an easy drag-and-drop thumbnail uploader; and a live streaming control interface.

KAIST Interaction Lab (KIXLAB), Daejeon, South Korea *Dec. 2015 - Feb. 2017*
Research Intern
Advisers: Jihee Kim and Juho Kim. Research on analysis of presidential election promises in relation with government budget expenditure data through crowdsourcing.

AWARDS & HONORS

Best TA Award *2019*
KAIST School of Computing

Google Women Techmakers Scholars *2019*
$1K Academic scholarship, awarded based on academic performance, leadership, and impact on the community of women in tech

Best Video Award *2019*
MobiSys 2019 [p.2]

Best Poster/Demo Award *2018*
ACM SIGCHI Local Chapter [p.1]

Undergraduate Research Program *2016*
$2K Research grant awarded by KAIST

2nd Place, The 3rd Korea SW Hackathon *2016*
$3K Award by the Ministry of Science, ICT and Future Planning of Republic of Korea

National Science & Technology Scholarship *2014 - 2017*
Merit-based scholarships

TEACHING EXPERIENCE

Teaching Assistant, KAIST *Spring 2020*
CS341 Introduction to Computer Networks

Head Teaching Assistant, KAIST *Spring 2019*
CS341 Introduction to Computer Networks

Invited Student Panel, KAIST *Spring 2019*
CS492 Introduction to Research (invited by Juho Kim, Sung-Ju Lee, and Shin Yoo)

Teaching Assistant, KAIST *Fall 2018*
CS341 Introduction to Computer Networks

Teaching Assistant, KAIST *Fall 2016 - Fall 2017*
CS101 Introduction to Programming

INVITED TALKS

Vibroacoustic-based Object Recognition with Smartphones
2019 IAT (Information Accessibility Technology) Conference Nov. 22, 2019

EXTRACURRICULAR EXPERIENCE

MADCAMP (Mobile Application Development Camp) *Dec. 2016 - Feb. 2017*
Intensive, focused development camp where I developed five different mobile applications in 4.5 weeks. Example apps are a humming-based multi-play music quiz game and a group alarm clock that ensures every member to wake up.

SPARCS (Developers Club), KAIST *Mar. 2014 - Dec. 2016*
Head of Server Management Group & Web Developer

Managed over 10 physical and virtual server machines as the leader of the club's server management group. Developed a server monitoring tool using gRPC. Held seminars on the basics of server management for students. Topics include Linux, LDAP, mail server, file system, and security.

SELECTED PRESS

Electronics Weekly, Sensor fusion lets phone identify objects by simply knocking against them *Oct. 2019*

Science Daily, Object identification and interaction with a smartphone knock *Oct. 2019*

NEW ATLAS, Smartphone tech recognizes objects by being knocked against them *Oct. 2019*

Nerdiest, This algorithm makes smartphones recognize objects just by Knocking them *Apr. 2018*

ICT NEWS, New application allows you to identify an object by tapping it with a smartphone *Apr. 2018*

Sporza, Sporza biedt interactieve primeur met Kiswe Mobile tijdens Diamond League Brussel *Aug. 2017*

TECHNICAL STRENGTHS

Programming Languages	Python, Java, Kotlin, Javascript, C++, C, MATLAB
Machine Learning Frameworks	PyTorch
Mobile Development	Android, React Native
Hardware Prototyping	Arduino, e-textiles
Backend Development	Django, Node, Express
Web Frontend Development	React, Vue.js, AngularJS, jQuery, D3.js, HTML, CSS
Database	Firebase, MySQL, MongoDB
Tools	Git/Github, Vim, LaTex, Markdown