Daehwa Kim

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EDUCATION

KAIST, School of Computing

Mar 2019 – Feb 2021 (Expected)

- M.S. student at Human-Computer Interaction Lab
 - Thesis: "OddEyeCam: Sensing Technique for Body-Centric Peephole Interaction Using WFoV RGB and NFoV Depth Cameras" (To be)
 - Adviser: Prof. Geehyuk Lee
 - Focus: Sensing Techniques

UNIST, Electrical and Computer Engineering

Mar 2015 – Feb 2019

- B.S. in Computer Science and Engineering (Major)
 - B.S. in Electrical Engineering (Minor)
 - Thesis: "VRone: 3D Force Feedback System in VR Using a Commercial Drone"
 - · Entered with top honors.
- Summer session program, ual: (University of the Arts London), London, UK

Jul 2018

Gyeongsan Science High School, High school diploma

Mar 2013 - Feb 2015

- Early graduated with UNIST President's Award.
- Club Activity: Physics Research Team, English Journal Club

PUBLICATIONS

CONFERENCES

- [1] <u>Daehwa Kim</u>, Keunwoo Park, and Geehyuk Lee. "OddEyeCam: A Sensing Technique for Body-Centric Peephole Interaction Using WFoV RGB and NFoV Depth Cameras" in *Proceedings of the 33rd Annual ACM Symposium on User Interface Software and Technology*, Virtual Event, USA, Oct 2020. (full paper)
- [2] Keunwoo Park, <u>Daehwa Kim</u>, Seongkook Heo, and Geehyuk Lee. "MagTouch: Robust Finger Identification for a Smartwatch Using a Magnet Ring and a Built-in Magnetometer" in *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, Honolulu, Hawaii, USA, Apr 2020. (full paper)

SUBMITTED

- [1] <u>Daehwa Kim</u>, Keunwoo Park, and Geehyuk Lee. "AtaTouch: Robust Finger Pinch Detection for a VR controller Using RF Return-Loss" in *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*, Yokohama, Japan. (full paper)
- [2] Hui-Shyong Yeo, Erwin Wu, <u>Daehwa Kim</u>, Juyoung Lee, Hyung-il Kim, Luna Takagi, Woontack Woo, Hideki Koike, and Aaron J Quigley. "OmniSense: Exploring Novel Input Sensing and Interaction Techniques on Mobile Device with OmniDirectional Camera" in *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*, Yokohama, Japan. (full paper)

DEMOS

[1] <u>Daehwa Kim</u>, Keunwoo Park, and Geehyuk Lee. "OddEyeCam: A Sensing Technique for Body-Centric Peephole Interaction Using WFoV RGB and NFoV Depth Cameras" in *Proceedings of the 33rd Annual ACM Symposium on User Interface Software and Technology*, Virtual Event, USA, Oct 2020. (fast track)

RESEARCH EXPERIENCE

HCI Lab, KAIST

Undergraduate Research Student, School of Computing

Mar 2018 – Jun 2018

Jan 2018 - Mar 2018

- Project: PCB design for a hand gesture sensing wristband.Supervisors: Prof. Geehyuk Lee
- Focus: PCB design

Hyper-connected Communication Research Laboratory, ETRI

- Research Intern, IoT Research Division
 - Project: Building IoT lighting system controlled by user's voice
 - Supervisors: Dr Jungsik Sung and Daeho Kim
 - Focus: IoT network system, Natural language processing

	IHCI Lab (Intelligent Human Computer Interaction Lab), UNIST	
	 Undergraduate Research Student, Electrical and Computer Engineering Project: Finger Joystick Interaction Supervisors: Prof. Sungahn Ko 	Feb 2017 – Nov 2017
	Focus: human-computer interaction, visualization	
AWARDS &	4th Prize , NAVER x UNIST Undergraduate Poster Award	Dec 2017
SCHOLARSHIPS	 Topic: "VibCat: Vibration Categorization for Input and Interaction". 	200 -017
	 Awarded by NAVER CEO. 	
	Received an award of 1,000,000 KRW.	
	Excellence Award , World Friends ICT volunteers return report 2016	Dec 2016
	 Dispatched to Uzbekistan to provide Android development lectures to university 	
	 Awarded by the Director of National Information Society Agency. 	ity stadenist
	 Received an award of Samsung Galaxy Tab 4 10.1. 	
	Academic Achievement Award, UNIST	
	■ 2017 Fall Academic Achievement Award: GPA 4.05/4.3	Jan 2018
	 2017 Spring Academic Achievement Award: GPA 3.98/4.3 	Jul 2017
	■ 2016 Fall Academic Achievement Award: GPA 3.90/4.3	Feb 2016
	 2016 Spring Academic Achievement Award: GPA 4.06/4.3 	Aug 2016
	 2015 Spring Academic Achievement Award: GPA 4.00/4.3 	Jul 2015
	Uni-Star Scholarship, UNIST	Mar 2015 – Feb 2019
	■ Entered with top honors.	
	■ Tuition + academic support fee of 1,000,000 KRW were paid each semester.	
	Overseas Training Scholarship, UNIST	Jun 2018
	• Financial aid for the summer session program in University of the Arts London	n
TEACHING	Teaching Assistant , AI Lab - Learning Commons II, UNIST	Sep 2019 – Dec 2019
EXPERIENCE	Head of Android Developement Team, HeXA, UNIST	Feb 2017 – Dec 2017
	Instructor, Tashkent University of Information Technologies (TUIT)	Jul 2016 – Sep 2016
CAMPUS	D2 factory, NAVER	
ACTIVITIES	■ Campus Partner	Feb 2016 – Feb 2017
	 Hosted the 1st Hackathon at UNIST, sponsored by NAVER and UNIST ECE 	
	HeXA (Hacker's eXciting Academy), UNIST	
	 A computer security & development research group 	
	■ Vice-President	Feb 2016 – Feb 2017
	 Head of Android development team 	Feb 2017 – Dec 2017
	 Provided regular anndroid-development lectures for club members 	
	UNIST Media Center, UNIST	
	■ Video Editor	Mar 2015 – Feb 2017
	 Representative work 	
	My Age 22 - Travel to Europe with a drone	
	Web drama: The town where engineers live	
PERSONAL	Audio Hero	Sep 2019 – Dec 2019
PROJECTS	 Sound-based danger detection system using VGGish deep learning model 	
	 Skills: Deep learning, Signal processing 	
	VRone	Sep 2018 – Dec 2018
	 3-dimensional force feedback in VR using a personal and commercial drone 	
	Skills: Unity C# programming, Android programming	
	System Light 2.0 @ ETRI	Jan 2018 – Mar 2018
	 Building IoT system for lights 	
	 Skills: Computer network, Natural language processing 	
	VibCat	Oct 2017 – Dec 2017
	 Vibration Categorization for Input & Interaction 	
	 Skills: Machine learning, Android programming 	

iHCI Lab (Intelligent Human Computer Interaction Lab), UNIST

Finger joystick interaction

Feb 2017 - Nov 2017

- Interaction technique to support finger's directional input using capacitive image of a smartwatch's touchscreen
- Skills: Machine learning, Android programming

Poem a moment Mar 2017 – Jun 2017

- An android application that shows Yoon Dongju's poems on the wallpaper
- Available on Google Play store (download 1000+)
- Skills: Android programming

TUIT Android Lecture Jun 2016 – Sep 2016

- Android development lecture provided to TUIT university students
- Skills: Android programming, Object-oriented programming

Mr.Bill Jun 2016 – Jul 2016

- Algorithm and system to provide optimal Dutch pay way
- Available on Google Play store (download 500+)
- Skills: Android programming, Graph theory

[CV compiled on 2020-11-01 for Acme Corporation]