

# Chaeyong Park

PH.D STUDENT · HAPTICS AND VIRTUAL REALITY LABORATORY

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## Overview

I am a graduate student at Haptics and Virtual Reality laboratory (HVR Lab.), POSTECH. I am interested in human-computer interaction (HCI), Haptics, and VR/AR. Above all, I focus on the multi-modal haptic rendering methods and novel sensing techniques.

## Education

### Pohang University of Science and Technology (POSTECH)

PH.D STUDENT. HAPTICS AND VIRTUAL REALITY LAB.

- Haptics, Humand-Computer Interaction, Advisor: Seungmoon Choi

Pohang, Korea

Mar. 2018 - Present

### Université de technologie de Troyes (UTT)

INTERNATIONAL STUDENT EXCHANGE PROGRAM

Troyes, France

Jul. 2016 - Aug. 2016

### Pohang University of Science and Technology (POSTECH)

B.S. COMPUTER SCIENCE AND ENGINEERING

- Cum Laude, Advisor: Jonghyeok Lee

Pohang, Korea

Mar. 2014 - Feb. 2018

## Peer-Reviewed Publications

### INTERNATIONAL CONFERENCE

- [ C5 ] **Chaeyong Park**, Jinhyuk Yoon, Seungjae Oh, and Seungmoon Choi. Augmenting Physical Buttons with Vibrotactile Feedback for Programmable Feels. in *Proceedings of the Annual ACM Symposium on User Interface Software and Technology* (Minneapolis, Minnesota, USA, October 20-23, 2020). UIST'20. ACM (Accepted).
- [ C4 ] Jinsoo Kim, Seungjae Oh, **Chaeyong Park**, and Seungmoon Choi. Body-Penetrating Tactile Phantom Sensations. in *Proceedings of the ACM conference on Human Factors in Computing Systems* (Hawai'i, USA, April 25-30, 2020). CHI'20. ACM.
- [ C3 ] **Chaeyong Park**, Jaeyoung Park, Seungjae Oh, and Seungmoon Choi. Realistic Haptic Rendering of Collision Effects Using Multimodal Vibrotactile and Impact Feedback. in *Proceedings of the IEEE World Haptics Conference* (Tokyo, Japan, July 9-12, 2019). WHC'19. IEEE. **Best Paper Nomination.**
- [ C2 ] Seungjae Oh, Gyeore Yun, **Chaeyong Park**, Jinsoo Kim, and Seungmoon Choi. VibEye: Vibration-Mediated Object Recognition for Tangible Interactive Applications. in *Proceedings of the ACM conference on Human Factors in Computing Systems* (Glasgow, Scotland, May 4-9, 2019). CHI'19. ACM.
- [ C1 ] Hojun Cha, Amit Bhardwaj, **Chaeyong Park**, and Seungmoon Choi. Random Forest for Modeling and Rendering of Viscoelastic Deformable Objects. in *Lecture Notes in Electrical Engineering* (Incheon, Korea, November 11-14, 2018). AsiaHaptics'18. Springer.

### DOMESTIC (KOREA)

- [ C2 ] **Chaeyong Park**, Jiwan Lee, Songyi Oh, Seungmoon Choi. Vibration and Impact Haptic Feedback for Realistic Collision Effect. in *HCI Korea 2019*.
- [ C1 ] Inseok Koh, Sungwon Cho, **Chaeyong Park**, Seungmoon Choi. VBand: Implementation of Collaborative VR Band System with Haptic. in *HCI Korea 2018*.

## Peer-Reviewed Posters and Demonstration

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- [ D2 ] **Chaeyong Park**, Jaeyoung Park, Seungjae Oh, and Seungmoon Choi. Realistic Haptic Rendering of Collision Effects Using Multimodal Vibrotactile and Impact Feedback. in *Demonstration of the IEEE World Haptics Conference* (Tokyo, Japan, July 9-12, 2019). WHC'19.
- [ D1 ] Seungjae Oh, **Chaeyong Park**, Jinsoo Kim, Gyeong Yun and Seungmoon Choi. VibEye: A System for Identification of Hand-held Object by Visualizing Vibration Propagation Dynamics. in *Demonstration of the IEEE World Haptics Conference* (Tokyo, Japan, July 9-12, 2019). WHC'19.

## Honors & Awards

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2018	<b>2nd Place</b> , POSTECH Programming Contest (PPC)	POSTECH, Korea
2017	<b>3rd Place</b> , POSTECH Programming Contest (PPC)	POSTECH, Korea
2016	<b>3rd Place</b> , POSTECH Programming Contest (PPC)	POSTECH, Korea
2015	<b>15th place</b> , ACM-International Collegiate Programming Contest Asia-Daejeon Regional Contest (ACM-ICPC)	Daejeon, Korea
2015	<b>5th Place</b> , POSTECH Programming Contest (PPC)	POSTECH, Korea

## Talk & Exhibition

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<b>Korea Haptic Community Workshop</b> Seoul National University	Seoul, Korea Sep. 2019
<b>Demonstration at ISS 2019 tutorials and workshops</b> 2019 ACM International Conference on Interactive Surfaces and Spaces (ISS 2019)	Daejeon, Korea Nov. 2019

## Employment Experience

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<b>SAP Labs Korea</b> RESEARCH INTERN	Seoul, Korea Jul. 2017 - Aug. 2017
• development of End-to-end workload and exception analysis-graphs visualization tools	

## Teaching Experience

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<b>Teaching Assistant</b> Intro. to Computer SW Systems (Undergraduate)	POSTECH Fall 2018
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## Patents

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- [ P1 ] Seungmoon Choi, **Chaeyong Park**, and Seungjae Oh . Apparatus and method for rendering tactile to provide multiple sense , (Filed No. 10-2019-016176, Korea Patent), Patent Pending

## Students Mentored

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<b>Jaejoon Park</b> , Undergraduate, POSTECH Computer Science and Engineering	2020
<b>Minjae Moon</b> , Undergraduate, POSTECH Computer Science and Engineering (Currently at POSTECH)	2019
<b>Jinhyuk Yoon</b> , Undergraduate, POSTECH Mechanical Engineering (Currently at POSTECH)	2019
<b>Jinsoo Kim</b> , Undergraduate, POSTECH Computer Science and Engineering (Currently at POSTECH)	2019
<b>Eunyoung Hyung</b> , Undergraduate, POSTECH Computer Science and Engineering (Currently at KAIST)	2019

## Funded Research Projects

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<b>Morphable Haptic Controller for Manipulating VR/AR Contents</b> Institute for Information and Communications Technology Promotion (IITP)	May. 2020 - present
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## Principle Study of Multi-sensory Feedback

HYUNDAI NGV

*May. 2020 - present*

## Developing Immersive Human Interaction Haptic Feedback system

Ministry of SMEs and Startups

*May. 2019 - present*

## Developing Haptic Device for the Visually-impaired

Korea Institute of Civil Engineering and Building Technology (KICT)

*Nov. 2019 - Dec. 2019*

## HD Haptic Technology for Hyper Reality Contents

Institute for Information and Communications Technology Promotion (IITP)

*Mar. 2018 - Dec. 2019*

## Skills

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**Programming** C/C++, Matlab, Python, JAVA, OCaml, LaTeX

**Web** Django, Node.js

**Video Editing** Adobe Premier Pro & After Effects, Photoshop, Illustrator