

Hyojoon Park

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RESEARCH INTEREST

Physics-based simulation in computer graphics combined with machine learning and computer vision.

EDUCATION

University of Wisconsin - Madison

Ph.D. student in Computer Science

*Sep. 2021 -
Wisconsin, USA*

Seoul National University

M.S. in Mechanical & Aerospace Engineering

· Haptic, controls, robotics, and physics-based simulation in computer graphics

*Feb. 2019
Seoul, South Korea*

Technical University of Munich (TUM)

B.S. Exchange Student in Mechanical Engineering

*Spring 2014
Munich, Germany*

Korea University

B.S. in Mechanical Engineering

*Feb. 2017
Seoul, South Korea*

PUBLICATIONS

- **Capturing Detailed Deformations of Moving Human Bodies,**
He Chen, **Hyojoon Park**, Kutay Macit, Ladislav Kavan, SIGGRAPH, 2021
- **Adaptive Precision-Enhancing Hand Rendering for Wearable Fingertip Tracking Devices,**
Hyojoon Park and Jung-Min Park, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2020
- **Stretchable Skin-Like Cooling/Heating Device for Reconstruction of Artificial Thermal Sensation in Virtual Reality,**
Jinwoo Lee, Heayoun Sul, Wonha Lee, Kyung Rok Pyun, Inho Ha, Dongkwan Kim, **Hyojoon Park**, Hyeonjin Eom, Yeosang Yoon, Jinwook Jung, Dongjun Lee, and Seung Hwan Ko, Advanced Functional Materials, 2020
- **Dental Simulator with Increased Z-width of Haptic Rendering,**
Hyojoon Park, Myungsin Kim, and Dongjun Lee, AsiaHaptics, 2018
- **Rigid-body Collaborative Manipulation among Remote Users with Wearable Cutaneous Haptic Interfaces,**
Myungsin Kim, WonHa Lee, **Hyojoon Park**, Junghan Kwon, Yong-Lae Park, and Dongjun Lee, AsiaHaptics, 2018
- **Design and Performance Evaluation of Wearable Haptic Interfaces,**
WonHa Lee, Myungsin Kim, **Hyojoon Park**, and Dongjun Lee, International Conference on Control, Automation and Systems, 2018
- **Wearable Cutaneous Haptic Interface with Soft Sensors and IMUs,**
Yongjun Lee, Myungsin Kim, Yongseok Lee, **Hyojoon Park**, and Dongjun Lee, Korea Robotics Society Annual Conference, 2018

WORK EXPERIENCES

University of Utah

Research Assistant (Advisors: Prof. Ladislav Kavan & Prof. Cem Yuksel)

*Sep. 2019 - Sep. 2021
Utah, USA*

Korea Institute of Science and Technology (KIST)

Intern Researcher

*Mar. - Aug. 2019
Seoul, Korea*

Engineering School in KAIST New Education

(Korea Advanced Institute of Science and Technology)

· Led "Arduino-based Exploration Robot" and "Developing Android Service App" classes

*Sep. 2014 - Feb. 2015
Seoul, Korea*

Military Service

Republic of Korea Army (ROKA) as Military English Interpreter

*Jun. 2011 - Mar. 2013
21 months*

TEACHING

Interactive Computer Graphics (CS6610)

Teaching Assistant

Spring 2021
University of Utah**Computer Graphics (CS4600)**

Teaching Assistant

Fall 2020
University of Utah**System Analysis in Mechanical Engineering**

Teaching Assistant

Spring 2018
Seoul National University**AWARDS****Outstanding MS Thesis Presentation Award**

Department of Mechanical Engineering

· Topic: Dental Simulator with Increased Z-width of Haptic Rendering

Dec. 2018
Seoul National University**Award of Excellence**

English-Mediated Course Tutor: Writing

Fall 2013
Korea University**SCHOLARSHIPS****Merit-based Scholarship**, Seoul National University

Spring 2018

National Scholarship, Korea University

Spring 2016

Future Scholarship, Korea University

Spring 2016

OTHER EXPERIENCES**Invited Presenter at NAVER LABS Seminar** (<https://www.naverlabs.com/>)

Topic: 'Dental Simulator with Increased Z-width of Haptic Rendering'

Dec. 2018
Seongnam, Korea**Mobile Application Developer**, independent

2015 - 2016

· **Korean Subway (iOS, Android)**

· First Korean subway app to use satellite-based subway maps with real-time arrival/departure information

· KDijkstra's shortest path algorithm, Kd-Tree data structure, Swift, Java, PHP-cURL, SQLite, Amazon AWS, Photo-shop, Illustrator

· **KUSchedule (iOS, Android)**

· Server-based auto-generative lecture timetable app for Korea University students

· AES-256 encryption, Objective-C, Java, PHP-cURL, DOM parser/regex, Photoshop, Illustrator

· **Space Shoot RPG (iOS, Android)**

· Arcade-RPG game

· Cocos2d-x in C++, SQLite, Photoshop, Illustrator

· **Falling Moon (iOS, Android)**

· Physics-based arcade game

· Cocos2d-x in C++, Cocos2d-x physics engine, Photoshop, Illustrator

· **Group Alarm (iOS, Android)**

· Socket-based mutli-user alarm app

· Node.js, UDP, Javascript, jQuery, Ajax, HTML, CSS, MySQL, Cordova, Amazon AWS, Photoshop, Illustrator

Invited Presenter New Faculty Orientation

Topic: 'How to Prepare for English-oriented Lectures'

Feb. 2014
Korea University**Korean Language Center**

Korean Tutor for International Students

Fall 2014
Korea University**Center of Teaching and Learning**

English-Mediated Course Tutor: Writing (received Award of Excellence)

Fall 2013
Korea University**SYMEE Academy**

TOEFL Writing Teacher

Jan. - Jul. 2013
Seoul, Korea**EBS (English Broadcasting System) Jeju English Camp**

English translator for foreign teachers

Jan. 2011
Jeju Island, Korea**SKILLS**

- Python, C/C++, Java, Swift, Objective-C, C#
- PHP, Javascript, Ajax, jQuery, Node.js