

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

- **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 - Jun. 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, Photoshop, 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 multi-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