Hyojoon Park

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RESEARCH AREA

Computer graphics & visualization: physics-based simulation, differentiable simulator/renderer.

EDUCATION

The University of Utah   *Sep. 2019 - present*
Ph.D in Computer Science   *Utah, USA*

Seoul National University   *Feb. 2019*
M.S. in Mechanical & Aerospace Engineering   *Seoul, South Korea*

Technical University of Munich (TUM)   *Spring 2014*
B.S. Exchange Student in Mechanical Engineering   *Munich, Germany*

Korea University   *Feb. 2017*
B.S. in Mechanical Engineering   *Seoul, South Korea*

PUBLICATIONS

- **Hyojoon Park** and Jung-Min Park,
  Adaptive Precision-Enhancing Hand Rendering for Wearable Fingertip Tracking Devices, IROS, 2020

- 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,
  Stretchable Skin-Like Cooling/Heating Device for Reconstruction of Artificial Thermal Sensation in Virtual Reality, Advanced Functional Materials, 2020

- **Hyojoon Park**, Myungsin Kim, and Dongjun Lee,
  Dental Simulator with Increased Z-width of Haptic Rendering, AsiaHaptics, 2018

- Myungsin Kim, WonHa Lee, **Hyojoon Park**, Junghan Kwon, Yong-Lae Park, and Dongjun Lee,
  Rigid-body Collaborative Manipulation among Remote Users with Wearable Cutaneous Haptic Interfaces, AsiaHaptics, 2018

- WonHa Lee, Myungsin Kim, **Hyojoon Park**, and Dongjun Lee,
  Design and Performance Evaluation of Wearable Haptic Interfaces, International Conference on Control, Automation and Systems, 2018

- Yongjun Lee, Myungsin Kim, Yongseok Lee, **Hyojoon Park**, and Dongjun Lee,
  Wearable Cutaneous Haptic Interface with Soft Sensors and IMUs, Korea Robotics Society Annual Conference, 2018

WORK EXPERIENCES

Korea Institute of Science and Technology (KIST)   *Mar. - Aug. 2019*
Intern Researcher   *Seoul, Korea*

Engineering School in KAIST New Education   *Sep. 2014 - Feb. 2015*
(Korea Advanced Institute of Science and Technology)   *Seoul, Korea*
· Led "Arduino-based Exploration Robot" and "Developing Android Service App" classes

Military Service   *Jun. 2011 - Mar. 2013*
Republic of Korea Army (ROKA) as Military English Interpreter

TEACHING

System Analysis in Mechanical Engineering   *Spring 2018*
Teaching Assistant   *Seoul National University*
· Problem solving, test/quiz reviews, MATLAB, Simulink, and Q&A

AWARDS

Outstanding MS Thesis Presentation Award   *Dec. 2018*
Department of Mechanical Engineering   *Seoul National University*

Award of Excellence   *Fall 2013*
English-Mediated Course Tutor: Writing   *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/`**)**   *Dec. 2018*
Topic: 'Dental Simulator with Increased Z-width of Haptic Rendering'   *Seongnam, Korea*

Mobile Application Developer, independent   *2015 - 2016*

· **Korean Subway (iOS, Android)**
· The first full Korean subway app to adopt satellite-based subway maps, with real-time train information
· *KDijkstra's shortest path algorithm, Kd-Tree data structure, Swift (iOS), Java (Android), PHP-cURL, SQLite, Amazon AWS, Photoshop, Illustrator*

· **KUSchedule (iOS, Android)**
· Server-based and auto-generated lecture timetable app for Korea University students (Android removed)
· *AES-256 encryption, Objective-C (iOS), Java (Android), 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 (currently removed)
· *Node.js, UDP, Javascript, jQuery, Ajax, HTML, CSS, MySQL, Cordova, Amazon AWS, Photoshop, Illustrator*

Invited Presenter New Faculty Orientation   *Feb. 2014*
Topic: 'How to Prepare for English-oriented Lectures'   *Korea University*

Korean Language Center   *Fall 2014*
Korean Tutor for International Students   *Korea University*

Center of Teaching and Learning   *Fall 2013*
English-Mediated Course Tutor: Writing (received Award of Excellence)   *Korea University*

SYMEE Academy   *Jan. - Jul. 2013*
TOEFL Writing Teacher   *Seoul, Korea*

EBS (English Broadcasting System) Jeju English Camp   *Jan. 2011*
English Translator for Foreign Teachers   *Jeju Island, Korea*

SKILLS

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