Hyojoon Park

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RESEARCH INTEREST

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

EDUCATION

University of Wisconsin-Madison　　　　　　　　　　　　　　　　　　*Sep. 2021 - Current*
Ph.D. student in Computer Sciences　　　　　　　　　　　　　　　　　　　　*Wisconsin, USA*

Seoul National University　　　　　　　　　　　　　　　　　　　　　　　　　*Feb. 2019*
M.S. in Mechanical Engineering　　　　　　　　　　　　　　　　　　*Seoul, South Korea*
　· Haptic, robotics, and physics-based simulation in computer graphics

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

- **Variational Auto-encoder for Collagen Fiber Centerline Generation and Extraction in Fibrotic Cancer Tissues**,
  Medical Image Analysis, 2022 (Under review)

- **Capturing Detailed Deformations of Moving Human Bodies**,
  He Chen, **Hyojoon Park**, Kutay Macit, and 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

TEACHING ASSISTANT

Computer Graphics (CS559), University of Wisconsin-Madison　　　　　　　　*Spring 2022*

Computer Graphics (CS559), University of Wisconsin-Madison　　　　　　　　　*Fall 2021*

Interactive Computer Graphics (CS6610), University of Utah　　　　　　　　　*Spring 2021*

Computer Graphics (CS4600), University of Utah　　　　　　　　　　　　　　　*Fall 2020*

System Analysis in Mechanical Engineering, Seoul National University　　　　　*Spring 2018*

WORK EXPERIENCES

University of Utah *Sep. 2019 - May 2021*
Graduate Research Assistant (Advisors: Prof. Ladislav Kavan) *Utah, USA*

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 *21 months*

AWARDS

Outstanding MS Thesis Presentation Award *Dec. 2018*
Department of Mechanical Engineering *Seoul National University*
 · *Topic: Dental Simulator with Increased Z-width of Haptic Rendering*

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*