

Hyojoon Park

hyojoon.park@wisc.edu · hjoonpark.github.io

RESEARCH INTEREST

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

EDUCATION

University of Wisconsin-Madison

Ph.D. student in Computer Sciences

Sep. 2021 - Current
Wisconsin, USA

Seoul National University

M.S. in Mechanical Engineering

· Haptic, 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

- **Variational Auto-encoder for Collagen Fiber Centerline Generation and Extraction in Fibrotic Cancer Tissues,** **Hyojoon Park**, Bin Li, Yuming Liu, Michael S. Nelson, Helen M. Wilson, Eftychios Sifakis, and Kevin W. Eliceiri, Medical Image Analysis, 2022 (Submitted)
- **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

Graduate Research Assistant (Advisors: Prof. Ladislav Kavan)

Sep. 2019 - May 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

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