

Jinhyuk Yoon

A Robotics Engineer

who works hard, solves problem, and communicates within people

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jinhyukyoon.com

EXPERIENCE

LivsMed

Feb 2022 – Present

Robotics Engineer (Alternative military service)

Joined as a founding member of Robot R&D Department

Lead robotics software development in engineering sample stage

Lead medical device software validation for TRL 7 research project

Serve as a Technical Research Personnel

Medical Assistant Robotics and Cognitive Haptics Laboratory

Mar 2020 – Jan 2022

Research Assistant

Designed and analyzed a robotic system for haptics research and master thesis

Designed two haptic interfaces for a funded research project

Published one IEEE ToH paper as the first author

Advisor: Keehoon Kim

Korea Foundation for the Advancement of Science and Creativity

May 2016 – Dec 2020

Science Communicator

Commissioned by the minister of Ministry of Science & ICT

Introduced mechanical engineering to the public through 40+ speeches and performances

Interaction Laboratory

Feb 2019 – Aug 2019

Undergraduate Research Assistant

Participated a research in area of haptics and human-computer interaction

Published one ACM UIST paper as the second author

Advisor: Seungmoon Choi

Samsung Electronics

Jan 2019 – Feb 2019

Mechanical Design Intern

Worked at Digital Appliances Division, Core Component R&D Lab

Developed an interactive webpage for torque analysis supporting hinge profile design

EDUCATION

Master of Science in Mechanical Engineering

2020 – 2022

Pohang University of Science and Technology

Thesis: Development of An Adaptive Planar Cable-Driven Haptic Interface to Maximize Workspace for Virtual Education Contents
Advisor: Keehoon Kim

Bachelor of Science in Mechanical Engineering

2014 – 2020

Pohang University of Science and Technology

Honor graduation with Magna Cum Laude

Minor in Industrial Management Engineering

Served as the 30th Student President of Department of Mechanical Engineering

Served as the 30th Chairman of Student Election Committee

Served as the 2nd Director of TEDxPOSTECH

PUBLICATIONS

Cable-Driven Haptic Interface With Movable Bases Achieving Maximum Workspace and Isotropic Force Exertion

Jinhyuk Yoon, Donghyeon Lee, Junyong Bang, Hyung Gon Shin, Wan Kyun Chung, Seungmoon Choi, and Keehoon Kim. *IEEE Transactions on Haptics*, vol. 16, no. 3, pp. 365-378, 2023.

Augmenting Physical Buttons with Vibrotactile Feedback for Programmable Feels

Chaeyong Park, **Jinhyuk Yoon**, Seungjae Oh, and Seungmoon Choi. In *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST)*, pp. 924-937, October 20-23, 2020 (Acceptance rate 21.6%).

AWARDS AND HONORS

Commission Letter

2016

Science communicator, Commissioned by Minister of Ministry of Science & ICT

Finalist

2016

Nationwide Top 11 of the 3rd FameLab Korea

Winner

2019

The 7th POSTECH Hackathon, Developed campus map android application

Runners Up

2017

Created media artwork at the Artience Creation Challenge 30x30 hosted by British Council Korea

Honorable Mention

2015, 2020

Introducing My Research, 3 Minutes Science Speech Contest hosted by POSTECH

Student of the Year

2015, 2016

Pohang University of Science and Technology, Department of Mechanical Engineering

4th Place

2016

The 2nd POSTECH Hackathon, Designed graduate school searching web platform

Research Assistantship

2020 - 2022

Pohang University of Science and Technology

Teaching Assistantship

2020

Pohang University of Science and Technology

National Academic Excellence Scholarship

2016 - 2019

Full-tuition, Korea Student Aid Foundation

KT&G Foundation Scholarship

2016

Pohang University of Science and Technology

Jigok Scholarship

2014 - 2016

Full-tuition, Pohang University of Science and Technology

PROJECTS

Entropy

2017

Media art work at 2017 Artience Creation Challenge 30x30, winning Runners Up
Express ageing with entropy which measures disorder and indicates direction of time

Picture Science Project

2016

Collaboration voluntary project with Korea National University of Arts students
Boosted science interest and understanding in elementary students through drawing and toy-making
Visited two children centers and met 40+ children

TEDxPOSTECH

2014 – 2015

Organized a TEDx event as a director and invited professor, writer, and pop-singer as speaker
Regular application was sold out in 50 seconds after open sign-ups

SKILLS AND TOOLS

Programming Language

C/C++, Python, MATLAB

Real-time control

Linux, TwinCAT, EtherCAT

3D Design

Solidworks