JINHYUK YOON

Medical Assistant Robotics and Cognitive Haptics Laboratory

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I'm skilled in system design, system control, and hardware prototyping as a robotics engineer. I value communication, business, and design to solve practical problem in our daily lives.

EXPERIENCE

Medical Assistant Robotics and Cognitive Haptics Laboratory

Mar 2020 - Present

Research Assistant

Design, analyze, and control a planar cable-driven haptic interface with an adaptive mechanism to maximize workspace. Lead hardware development of a national research foundation project. Advisor: Keehoon Kim.

Interaction Laboratory

Feb 2019 - Aug 2019

Undergraduate Research Assistant

Prototyped hardware and designed sensing system for augmenting programmable feels of physical buttons with vibrotactile feedback. Advisor: Seungmoon Choi.

Samsung Electronics, Digital Appliances Division, Core Component R&D Lab

Jan 2019 - Feb 2019

Mechanical Design Intern

Developed a web application that simplified hinge design process with data visualization, dynamic analysis, and reverse engineering concept.

EDUCATION

Master of Science in Mechanical Engineering

2020 - Present

Pohang University of Science and Technology (POSTECH)

Master 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 (POSTECH)

Honor graduation with Magna Cum Laude.

Minor in Industrial Management Engineering.

Served as student president of the department and director of TEDxPOSTECH.

PUBLICATIONS

Augmenting Physical Buttons with Vibrotactile Feedback for Programmable Feels

Chaeyong Park, Jinhyuk Yoon, Seungjae Oh, and Seungmoon Choi. In Proceedings of ACM UIST 2020. (Acceptance rate 21.6%)

AWARDS AND HONORS

| Commission Letter Minister of Ministry of Science & ICT commissioned me as a science communicator | 2016 |
|---|----------------|
| Finalist Nationwide Top 11 of the 3rd FameLab Korea | 2016 |
| Winner Developed campus map android application at the 7th POSTECH Hackathon | 2019 |
| Runners Up Created media artwork at the Artience Creation Challenge 30x30 hosted by British Council Korea | 2017 |
| Honorable Mention Introducing My Research, 3 Minutes Science Speech Contest hosted by POSTECH | 2015, 2020 |
| Student of the Year POSTECH, Department of Mechanical Engineering | 2015, 2016 |
| 4th Place Designed graduate school searching web platform at the 2nd POSTECH Hackathon | 2016 |
| Research Assistantship POSTECH | 2020 - Present |
| Teaching Assistantship POSTECH | 2020 |
| National Academic Excellence Scholarship Korea Student Aid Foundation, Full-tuition | 2016 - 2019 |
| KT&G Foundation Scholarship POSTECH | 2016 |
| Jigok Scholarship POSTECH, Full-tuition | 2014 - 2016 |

SKILLS AND TOOLS

Programming Language

C, C++, MATLAB

Real-time OS

TwinCAT

3D Design

Solidworks