# JINHYUK YOON

## Medical Assistant Robotics and Cognitive Haptics Laboratory

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I'm an engineer proficient in presentation and public speech. With the interests in human-robot interaction and haptics, I aspire to design intelligent assistant robot that extend human capability. Also as a science communicator commissioned by the South Korean government, I have been succeeding in delivering knowledge about science to the children, student and public through public speech, performance and video art.

## PROFESSIONAL EXPERIENCE

### Medical Assistant Robotics and Cognitive Haptics Laboratory

Mar 2020 - Present

Research Assistant

Designing intelligent assistant robots that extend human capability through intuitive and immersive human-robot interfaces. Advisor: Keehoon Kim.

Geekble Mar 2019 - Present

Project Manager (Freelance)

Leading an on-stage talk business for students focused on science and hands-on activities based on YouTube videos.

**Interaction Laboratory** Feb 2019 – Aug 2019

Undergraduate Research Assistant

Conducted hardware prototyping, sensing system calibration, and user experiment design 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

Simplified design process of creating an appliance and helped engineers to modify mechanical property through Interactive Torque Designer which interprets dynamics with an intuitive graphic.

#### Korea Foundation for the Advancement of Science & Creativity

May 2016 - Jan 2018

Science Communicator (Freelance)

Succeeded effective understanding on the knowledge of mechanical engineering for elementary, middle school, high school students and adult through public speech and stage performance with participation of audience.

# **EDUCATION**

### Master of Science in Mechanical Engineering

2020 - Present

Pohang University of Science and Technology (POSTECH)

Research interests: Human-robot interaction, Haptics.

Advisor: Keehoon Kim

#### **Bachelor of Science in Mechanical Engineering**

2014 - 2020

Pohang University of Science and Technology (POSTECH)

Minor in Industrial Management Engineering. Honor graduation with Magna Cum Laude. Bachelor Thesis Project: Book Borrowing Robot.

## **EXPLORATION**

**Sovoro** Jan 2018 – Apr 2018

Communications Manager

Improved educational circumstance of hearing impaired as allowing them to understand the contents of usual class or seminar through conducting UI/UX research and designing the real-time transcript software.

#### Asan Medical Center, Biomedical Engineering Research Center

Aug 2017 - Sep 2017

Research Intern

Designed concept prototype of Ankle Rehabilitation Assistant which analyzes ankle torque and provides rehabilitative movement. Advisor: Youngjin Moon.

#### POSTECH, Department of Mechanical Engineering

Jan 2016 - Mar 2017

Student President

Requested for improvement and opening of major classes based on the students' needs and directed departmental level of general meeting, student membership training, professor appreciation banquet, and the first inter-university association program with KAIST.

## **POSTECH, Student Election Committee**

Sep 2016 - Nov 2016

Chairman

Organized the student election committee and run the election for central student president.

TEDxPOSTECH Nov 2014 – Nov 2015

Director

Organized talk conference that sold out after 50 seconds of opening sign-ups through team building, speaker and sponsor contact, stage planning and facilitating on the event.

# **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.

# To My Students, To My Teachers

Andrea Sohn and Jinhyuk Yoon. The Korea Fulbright Infusion, Vol 6, 2013, 39 - 41.

## AWARDS AND HONORS

Commission Letter 2016

Minister of Ministry of Science & ICT commissioned me as a science communicator

| <b>Finalist</b> Nationwide Top 11 of the 3rd FameLab Korea   | 2016        |
|--|-------------|
| <b>1st Prize</b> Developed campus map android application at the 7th POSTECH Hackathon                                   | 2019        |
| Runners Up Artience Creation Challenge 30x30 hosted by British Council Korea   | 2017        |
| Honorable Mention  3 Minutes Science Speech Contest hosted by POSTECH  | 2015        |
| Student of the Year POSTECH, Department of Mechanical Engineering  | 2015, 2016  |
| <b>4th Prize</b> Designed graduate school searching web platform at the 2nd POSTECH Hackathon                            | 2016        |
| 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 |
| SELECTED TALKS   |             |
| Talk, "About Experience", POSTECH Senior Conference for Freshman, Pohang   | 2018, 2019  |
| Keynote Speech, "Engineering and Science Communication", The 5th Integrated Science Leading Teacher Training, Yeongcheon | 2016        |
| Keynote Speech, "About Science Communication", National Youth Science Exploration Competition, Gyeongju                  | 2016        |
| Talk, "Regain the Lost Life", Suseong-gu Gosan Library, Daegu  | 2018        |
| Talk, "Regain the Lost Life", KIST Science Station, Seoul  | 2017        |
| Talk, "Space Food", The 13th Bohyeonsan Starlight Festival, Yeongcheon   | 2016        |
| Talk, "Science, Engineering and Me", Seongji High School, Yongin   | 2017        |
| Talk, "Communicate with Science", Mulgeum High School, Yangsan   | 2017        |
| Talk, "Talk with Odd Engineering Student", Samsung Girl's High School, Busan   | 2017        |
| CIVILLO AND TOOLO  |             |

# **SKILLS AND TOOLS**

# **Programming Language**

C, C++, JAVA, MATLAB, HTML, CSS, JavaScript

# **Graphic Design**

Adobe Photoshop, Illustrator, Premiere, After Effects, InDesign

# 3D Design Analysis

Solidworks, NX