

# JINHYUK YOON

## Medical Assistant Robotics and Cognitive Haptics Laboratory

410 KIRO, 39, Jigok-ro, Nam-gu, Pohang, Gyeongbuk, South Korea

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I'm an engineer interested in physical interaction and proficient in public speech. I'm skilled in system design, hardware prototyping, user experimental design, and presentation as a mechanical engineering professional. I value design of intuitive and immersive interaction which helps user to leverage technology.

## EXPERIENCE

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### 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.

### 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.

### 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.

### 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.

## FREELANCE EMPLOYMENT

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### Geekble

Mar 2019 – Present

Project Manager

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

## Korea Foundation for the Advancement of Science & Creativity

May 2016 – Present

Science Communicator

Succeeding 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

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### 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.

## PUBLICATIONS

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### 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

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### Commission Letter

2016

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

### Finalist

2016

Nationwide Top 11 of the 3rd FameLab Korea

### Winner

2019

Developed campus map android application at the 7th POSTECH Hackathon

### Runners Up

2017

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

### Honorable Mention

2015

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

### Student of the Year

2015, 2016

POSTECH, Department of Mechanical Engineering

### 4th Place

2016

Designed graduate school searching web platform at the 2nd POSTECH Hackathon

<b>Research Assistantship</b> POSTECH	2020 - Present
<b>Teaching Assistantship</b> POSTECH	2020
<b>National Academic Excellence Scholarship</b> Korea Student Aid Foundation, Full-tuition	2016 - 2019
<b>KT&amp;G Foundation Scholarship</b> POSTECH	2016
<b>Jigok Scholarship</b> POSTECH, Full-tuition	2014 - 2016

## PATENTS

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### **Apparatus and method for providing haptic feedback**

Seungmoon Choi, Chaeyong Park, and Jinhyuk Yoon. (Filed No. 10-2020-0108441, Korea Patent), Patent Pending.

## TEACHING EXPERIENCE

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<b>Freshman Research Participation</b> Prepared lecture and advised project for undergraduate student as a teaching assistant.	2020
<b>Picture Science Project</b> Planned class and taught electromagnetism to elementary students as a voluntary project.	2016

## SELECTED TALKS

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Talk, <i>"About Experience"</i> , <b>POSTECH Senior Conference for Freshman</b> , Pohang	2018, 2019
Keynote Speech, <i>"Engineering and Science Communication"</i> , <b>The 5th Integrated Science Leading Teacher Training</b> , Yeongcheon	2016
Keynote Speech, <i>"About Science Communication"</i> , National Youth Science Exploration Competition, Gyeongju	2016
Talk, <i>"Regain the Lost Life"</i> , <b>Suseong-gu Gosan Library</b> , Daegu	2018
Talk, <i>"Regain the Lost Life"</i> , <b>KIST Science Station</b> , Seoul	2017
Talk, <i>"Space Food"</i> , <b>The 13th Bohyeonsan Starlight Festival</b> , Yeongcheon	2016
Talk, <i>"Science, Engineering and Me"</i> , <b>Seongji High School</b> , Yongin	2017
Talk, <i>"Communicate with Science"</i> , <b>Mulgeum High School</b> , Yangsan	2017
Talk, <i>"Talk with Odd Engineering Student"</i> , <b>Samsung Girl's High School</b> , Busan	2017

## SKILLS AND TOOLS

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### **Programming Language**

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

### **Graphic Design**

Adobe Photoshop, Illustrator, Premiere, After Effects, InDesign

### **3D Design & Analysis**

Solidworks, NX