yeonju-kim.github.io | Linked In

#### **EDUCATION**

## **University of Illinois at Urbana-Champaign**

Illinois, US

Master of Science in Mechanical Engineering (GPA 3.86/4.0)

Sep. 2019 - May. 2021(Expected)

Email: yeonjuk2@illinois.edu

Mobile: (+1) 217-418-7162

Coursework in Robotics: Control System Theory and Design, Computational Photography, Machine Learning, Markov Decision Processes and Reinforcement Learning, Special Topics in Learning-based Robotics, Analysis of Nonlinear Systems

**Seoul National University** 

Seoul, South Korea

Bachelor of Science in Mechanical Engineering and Aerospace Engineering (GPA 3.73/4.3)

Mar. 2014 - Feb. 2019

#### TECHNICAL SKILLS

Programming: Python, C/C++, OpenCV, TensorFlow, PyTorch, MATLAB, Javascript, HTML, CSS, ROS

3-D Modeling: SOLIDWORKS, Fusion360, 3D-MAX

Other Software: Unreal Engine, Adobe Photoshop, Adobe Illustrator

#### **PUBLICATION**

**Y.Kim**, Z.Pan, and K.Hauser. MO-BBO: Multi-Objective Bilevel Bayesian Optimization for Robot and Behavior Co-Design. Submitted to IEEE International Conference on Robotics and Automation (ICRA) 2021 (Accepted)

#### ROBOTICS DEVELOPMENT EXPERIENCE

# Intelligent Motion Laboratory, University of Illinois at Urbana-Champaign

Illinois, US

Graduate Researcher

Sep. 2019 - Present

- Developed a co-optimization method for robot design and behaviors, which helps designers effectively explore the design space.
- Evaluated the method by applying it to grasping gripper design and arm placement for a bimanual mobile manipulator.
- Work on the optimization of robot arm placement for the Tele-Robotic Intelligent Nursing Assistant (TRINA) considering human-likeness.

Bear Robotics Seoul, South Korea

Software Engineering Intern

Jan. 2019 - June 2019

- Developed web-based ROS data visualization using ROS Javascript libraries.
- Investigated Seq2Seq model and Transformer model to implement Korean Chatbot.

#### **NC SOFT Corporation**

Seongnam, South Korea

Game Development Intern

July 2018 - August 2018

- Developed Turn-Based 3-D Tank Game using Unreal Engine 4 with C++.
- Developed Online Multiplayer Tank Game based on the Client-Server architecture.

# **Biorobotics Laboratory, Seoul National University**

Seoul, South Korea

Undergraduate Researcher

Mar. 2017 - June 2018

- Fabricated soft robotic modules with 3-D printer.
- Analyzed soft module movement using Pseudo Rigid Body modeling method.
- Developed a bending angle prediction method as a design guide for users to attain desired motions.

## Disney Research Zurich and Autonomous Systems Laboratory, ETH Zurich

Zurich, Switzerland

*Undergraduate Researcher* 

Sep. 2017 - Feb. 2018

• Designed and fabricated two different designs minimizing the adverse effect on servomotor caused by undesirable rake's motions.

#### **HONORS AND AWARDS**

<b>Korean Government Scholarship for Overseas Study</b>   Awarded 40 K USD annually for 2 years	2019 - 2021
National Scholarship for Science and Engineering   Awarded 6K USD annually for 2 years (full tuition)	2016 - 2017
Eminence Scholarship, Seoul National University   Awarded 3K USD (full tuition)	Sep. 2015
Gold Prize, The 7th Creative Design Challenge for 90 Percent Alienated	May 2015
SNU Development Fund Scholarship, Sangjin Foundation   Awarded 2K USD	March 2015
Merit-based Scholarship, Seoul National University   Awarded 1.5K USD	Sep. 2014

## **EXTRACURRICULAR ACTIVITIES**

**SNU Tomorrow's Engineers Membership(STEM)**, Seoul National University

Mar. 2016 - August 2017

- The only honor society in College of Engineering, Seoul National University
- Shared my vision and experiences with over 300 high school students to encourage them to study engineering.