

# Kyoungyeon Choi

MECHANICAL ENGINEERING S.M. APPLICANT

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## Research Interests

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- Robotics, Robotic Manipulation, and Legged Robotics
- Robot Learning and Reinforcement Learning
- Dynamics and Control

## Education

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### Seoul National University (SNU)

Seoul, S.Korea

B.S. IN MECHANICAL ENGINEERING

Mar. 2015 - PRESENT

- Cumulative GPA: 4.1/4.3 (Major: 4.19/4.3, Upper: 4.21/4.3)
- Two years of absence to fulfill military duty (Aug. 2017 - Jul. 2019)

### ETH Zürich

Zürich, Switzerland

EXCHANGE STUDENT IN MECHANICAL ENGINEERING

Aug. 2019 - Feb. 2020

- Global Leadership Program, College of Engineering SNU
- Overall GPA: 5.87/6

## Research Experience

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### Bachelor's Thesis Research

Seoul, S.Korea

ROBOTICS LABORATORY, SNU

Mar. 2020 - Present

- Advisor: Frank Chongwoo Park Prof.Dr.
- Thesis: Learning 6-dof grasping with reinforcement learning

### Semester Project

Zürich, Switzerland

ROBOTICS SYSTEMS LAB, ETH ZÜRICH

Aug. 2019 - Jan. 2020

- Advisor: Hutter, Marco Prof.Dr.
- Project paper: Recovery controller for ANYmal on various terrains
- Developed recovery controller for quadruped robot "ANYmal", enabling the robot to recover and stand up on sloped terrains

### Research Intern

Seoul, S.Korea

PHOTONICS DEVICE PHYSICS LABORATORY, YONESI UNIVERSITY

Dec. 2016 - Feb. 2017

- Advisor: Kyunghwan Oh Prof.Dr.
- Research Paper: Two-mode Fiber with a Reduced Mode Overlap for Uncoupled Mode-division Multiplexing in C+L Band
- Designed a fiber optic cable that reduces mode overlap in LP01 and LP11 modes

## Publications

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- Seongjin Hong, **Kyoungyeon Choi**, Yong Soo Lee, and Kyunghwan Oh, "Two-mode Fiber with a Reduced Mode Overlap for Uncoupled Mode-division Multiplexing in C+L Band", Current Optics and Photonics, Vol. 2, Issue. 3, June 25, 2018.

## Extracurricular Activity

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### Sigma Intelligence

Seoul, S.Korea

MEMBER, SNU

Mar. 2017 - Aug. 2017

- A robotics group focused on designing robots and electronics devices
- Developed footsteps warning device using piezoelectric sensor with ROS

### Teaching and Mentorship

Seoul, S.Korea

TEACHER

Mar. 2015 - Aug. 2019

- Taught and mentored middle/high school students Math and Physics for 4 years

## Honors & Awards

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### Gwanak President Scholarship

SNU ALUMNI ASSOCIATION

- Awarded for academic excellence
- Full-tuition, 7 semester

Seoul, S.Korea

Sep. 2015 - Present

### Global Leadership Program Scholarship

COLLEGE OF ENGINEERING, SNU

- Exchange semester at ETH Zürich

Seoul, S.Korea

Aug. 2019

### National Mathematics Competition

GLOBAL ASSOCIATION FOR GIFTED AND TALENTED

- The first prize

Seoul, S.Korea

Nov. 2013

## Skills

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**Programming** Python, Matlab, Tensorflow, C, C++, ROS, LaTeX

**3D CAD** SolidWorks

**Robot Simulation** Raisim gym, Mujoco gym, PyRep

**Physics Simulation** COMSOL Multiphysics

## Other Experience

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### Seoul Metro Corporation

SOCIAL SERVICE AGENT

- Alternative military service
- Designed a CAD model for military purpose

Seoul, S.Korea

Aug. 2017 - Jul. 2019