

# Hyoin Kim

Robot software engineer

## Personal Info

### Mobile Phone

+82)10-6715-0509

### Email

rlagydl@gmail.com

## Skills

### C++/C

8/10

### ROS

7/10

### Python

6/10

### MATLAB

9/10

### Latex

10/10

## Languages

### English

8/10

## Research interests

- Autonomous navigation
- Motion planning
- Learning from demonstration
- Mobile manipulation systems
- Multi-robot systems



Motion  
planning



Mobile manipulation  
systems



Learning from  
demonstrations

## Educations

**2014. 03 – 2020. 08** Seoul National University, Seoul, Republic of Korea  
M.S./Ph.D. in Mechanical and Aerospace Engineering  
Lab: Labs for Autonomous Robotics Research (LARR)  
Advisor: H. Jin Kim  
GPA: 3.79 / 4.3

**2014. 02** Hanyang University, Seoul, Republic of Korea  
B.S. in Mechanical Engineering  
Advisor: Junhong Park  
GPA: 3.97 / 4.5

## Academic experiences

**2018. 06 – 2018. 08** Visiting researcher @ U. C. Berkeley  
Collaborate research with Hybrid systems group in  
Electrical Engineering and Computer Sciences at  
University of California, Berkeley, CA, USA

## Major activities

### Projects

**2014 .03– present** Multiple Industry-Academia-Government  
Research Projects  
11 Research participant (RP)  
4 Project Manager (PM)

### International Seminar

**2019. 10** Asian Deans' Forum 2019: The Rising Stars  
Women in Engineering Workshop  
Invited rising star

**2017. 12** The 1st KAST-KSSEA Young Generation Scientists  
& Engineers Open Forum  
Invited young engineer

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## Research video clips

<https://www.youtube.com/playlist?list=PLMPnuH-bn5arQGhSL9FhWE9IC-WZ2dkrE>

## Honors

- 2017** [Best student paper award finalist](#) in IEEE International Conference on Robotics and Automation (ICRA 2017), The first author
- 2015** [Young women engineer's paper](#) in 30th Institute of control, robotics and systems annual conference (ICROS 2015), The first author
- 2013** 2nd B.S paper prize, Hanyang University, Coauthor

## Publications

### Ph. D. dissertation

"Learning and Generalizing Complex Robot Motion Skills with Movement Primitives"

### International Journals (4 papers)

- [H. Kim](#), H. Seo, S. Choi, C. J. Tomlin, and H. J. Kim, "Incorporating safety into parametric dynamic movement primitives," IEEE Robot. Autom. Lett., vol. 4, no. 3, pp. 2260–2267, 2019. SCIE (IF:3.608)
- [H. Kim](#), H. Seo, C. Y. Son, H. Lee, S. Kim, and H. J. Kim, "Cooperation in the air: A learning-based approach for efficient motion planning of aerial manipulators," IEEE Robot. Autom. Mag., vol. 25, no. 4, pp. 76–85, Dec. 2018. SCIE (IF:4.250)
- H. Lee, [H. Kim](#), W. Kim and H. J. Kim, , "An Integrated Framework for Cooperative Aerial Manipulators in Unknown Environments," IEEE Robot. Autom. Lett., vol.3, issue. 3, pp. 2307-2314, 2018.
- H. Lee, [H. Kim](#), and H. J. Kim, "Planning and control for collision free cooperative aerial transportation," IEEE Trans. Autom. Sci. Eng., vol. 15, no. 1, pp. 189–201, 2018. SCIE (IF:2.696)

### International Conferences (7 papers)

- [H. Kim](#), H. Seo, J. Kim, and H. J. Kim, "Sampling-based Motion Planning for Aerial Pick-and-Place," IEEE/RSJ Int. Conf. Intelligent Robots and Systems, 2019, pp. 7402-7408.
- [H. Kim](#), H. Lee, S. Choi, Y.-K. Noh, and H. J. Kim, "Motion planning with movement primitives for cooperative aerial transportation in obstacle environment," in Proc. IEEE Int. Conf. Robotics and Automation, 2017, pp. 2328–2334. [Best Student Paper Award Finalist](#)
- H. Lee, [H. Kim](#), and H. J. Kim, "Path planning and control of multiple aerial manipulators for a cooperative transportation," IEEE/RSJ Int. Conf. Intelligent Robots and Systems, 2015, pp. 2386-2391.