

## EDUCATION

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- Seoul National University** Seoul, Korea  
Ph.D. Candidate in Mechanical and Aerospace Engineering 2018 – Current  
– Advisor: H. Jin Kim  
– Research Interest: Robotics, Machine Learning, Reinforcement Learning  
– GPA: 4.08/4.30
- Seoul National University** Seoul, Korea  
B.S. in Mechanical and Aerospace Engineering 2014 – 2018  
– Thesis: Reconstructing locomotion in VR from WIP (Walking-In-Place) motion : an IMU-based, inside-out approach  
– Advisor: Frank Chongwoo Park and Jinwook Kim  
– GPA: 4.12/4.30

## EXPERIENCE

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- Korea Institute of Science and Technology (KIST)** Seoul, Korea  
Undergraduate Intern at Center for Imaging Media Research (IMRC) March, 2017 – November, 2017  
– Locomotion Reconstruction in Virtual Reality

## PROJECTS

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- Transfer Learning for Multi-agent Systems** October, 2019 – October, 2021  
Agency for Defense Development
- BabyMind: Infant-Mimic Developmental Machine Learning** April, 2019 – December, 2020  
Korea Ministry of Science and ICT
- RL Application of an A/C Unit via Domain Randomization** August, 2019 – November, 2020  
LG Electronics
- Seoul National University Undergraduate Research Program** March, 2016 – December, 2016  
Sigma Intelligence (RAMMUS: Omni-directional Spherical Robot)
- Seoul National University Undergraduate Research Program** March, 2015 – December, 2015  
Sigma Intelligence (SNU e-Wheel: Smart E-bike Conversion In-wheel Module)
- KOFAC Undergraduate Creative Convergence Research Program** March, 2014 – December, 2014  
Sigma Intelligence (ISAC: Intelligent Self-Assembling Cobra)

## PUBLICATIONS

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- [1] D. Cho, **J. Kim**, and H. J. Kim, “Unsupervised reinforcement learning for transferable manipulation skill discovery”, *IEEE Robotics and Automation Letters*, (accepted for publication).
- [2] **J. Kim**, D. Jang, and H. J. Kim, “Distributed multi-agent target search and tracking with gaussian process and reinforcement learning”, *International Journal of Control, Automation and Systems*, (submitted).
- [3] **J. Kim**, J. H. Park, D. Cho, and H. J. Kim, “Automating reinforcement learning with example-based resets”, *IEEE Robotics and Automation Letters*, (accepted for publication).
- [4] J. H. Park, **J. Kim**, and H. J. Kim, “Spatio-semantic task recognition: Unsupervised learning of task-discriminative features for segmentation and imitation”, *International Journal of Control, Automation and Systems*, vol. 19, no. 10, pp. 3409–3418, 2021.
- [5] J. H. Park, **J. Kim**, Y. Jang, I. Jang, and H. J. Kim, “Learning transformable and plannable se (3) features for scene imitation of a mobile service robot”, *IEEE Robotics and Automation Letters*, vol. 5, no. 2, pp. 1664–1671, 2020.
- [6] S. Park, **J. Kim**, and H. J. Kim, “Zero-shot transfer learning of a throwing task via domain randomization”, in *2020 20th International Conference on Control, Automation and Systems (ICCAS)*, IEEE, 2020, pp. 1026–1030.
- [7] **J. Kim**, S. Choi, and H. J. Kim, “Fast and safe policy adaptation via alignment-based transfer”, in *2019 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, IEEE, 2019, pp. 990–996.
- [8] J.-H. Woo, **J. Kim**, D. Park, H.-J. Bae, J.-H. Kim, S.-E. Lee, S. C. Kim, and H.-J. Kwon, “Misclassified type 1 agns in the local universe”, *arXiv preprint arXiv:1411.2327*, 2014.

## HONORS, AWARDS, SCHOLARSHIPS

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- Lecture & Research Scholarship 2020
- Brain Korea 21 Plus (BK21+) Research Scholarship 2018 – 2019
- Kwanjeong Educational Foundation (KEF) Domestic Scholarship 2018 – 2019
- Summa Cum Laude, Seoul National University 2018
- National Scholarship for Science and Engineering 2016 – 2017
- Excellence Award at Seoul National University Undergraduate Research Program (URP) 2016
- Encouragement Prize at Seoul National University Creative Design Competition 2016
- Encouragement Prize at KIPE 14th Intelligent Electronics (I.E) Competition 2016
- Top Prize at Seoul National University Creative Design Competition 2015
- Academic Excellence Scholarship 2014 – 2015
- Excellence Award at KOFAC Undergraduate Creative Convergence Research Program 2014
- Silver Prize at Seoul National University Electrical and Computer Engineering (SNU ECE) Contest 2014
- Bronze Prize at Samsung Techwin 2014 Robot Membership 2014
- Outstanding Freshman Scholarship 2014

## TEACHING

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- **Teaching Assistant** at Seoul National University Fall 2018  
*Introductory Engineering Probability (M2795.003400)*
- **Tutor** at Seoul National University Spring 2017  
*Basic Physics 1(034.012)*

## EXTRACURRICULAR ACTIVITIES

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- Sigma Intelligence, Seoul National University 2014 – 2017  
*Participated in undergrad research/competition as a hobby roboticist (hardware design/programming)*
- Seoul National University Philharmonic Orchestra (SNUPO) Winter 2014  
*Performed as an amateur violist at the 46th regular concert*

## SKILLS

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- **Programming Languages:** Python, MATLAB, C/C++, Simulink, LabVIEW
- **Frameworks:** TensorFlow, ROS
- **Tools:** Git, Onshape, SOLIDWORKS

## LANGUAGES

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- **Language: English** (native-level proficiency)
  - **TEPS (Test of English Proficiency):** 585 (1+ level) out of 600 (expired)
  - **TOEFL (Test of English as a Foreign Language):** 110 out of 120 (expired)
- **Language: Korean** (native)
- **Language: Chinese** (elementary)