

Jun-Gill Kang

Email: junggillkang@gmail.com, Webpage: <https://jgkang1210.github.io/>, Youtube: [click](#), Scholar: [click](#)

EDUCATION

Pohang University of Science and Technology – POSTECH *Pohang, South Korea*
Convergence IT Engineering, Mechanical Engineering (Double major), BSc *Mar. 2019 – Feb. 2022*
GPA: 4.09/4.3 (3.92/4.0), Major: 4.20/4.3 (3.96/4.0) (1st/9) **Summa Cum Laude**
Graduate representative (1st/All U.G.)

State University of New York at Stony Brook (SUNY) *Jul. 2019 – Dec. 2019*
GPA: 3.96/4.0 - Courses for Math, Physics, Liberal Arts *Half year full funding scholarship*

SELECTED PROJECTS

*indicates equal contribution

OM-1: Frontier Robot Intelligence, Learned Firsthand from Humans
Reward AI Team (initial member; OM-1 training and deployment on humanoid robots)
Reward AI, 2026 Blog : [click](#)

Agile perceptive multi-skill locomotion for quadrupedal robots in the wild
Jun-Gill Kang*, Jaehyun Park*, Tae-Gyu Song, Joon-Ha Kim, Seungwoo Hong**, and Hae-Won Park**
Science Robotics [July. 2026. Cover Article], 2026 Page : [click](#)

Diffusion ReRoll: Revisable Denoising for Robotic Sequential Prediction
Seonsoo Kim, Seongil Hong, and **Jun-Gill Kang**
Conference on Robot Learning (CoRL), 2026, **Spotlight (top 4.4%)** Page : [click](#)

A Highly Maneuverable Flying Squirrel Drone with Controllable Foldable Wings
Jun-Gill Kang*, Dohyeon Lee*, and Soohee Han
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2023 Page : [click](#)

WORK EXPERIENCE

Reward AI *San Francisco Bay Area, CA, USA*
Member of Technical Staff *2026-Current*

- Initial member of the company during the stealth stage (< 10 members).
- Contributed to **OM-1** robot foundation model training and deployment on humanoid robots ([blog](#)).

Agency for Defense Development (ADD), Defense AI Center *Daejeon, South Korea*
First Lieutenant, Research Officer for National Defense *2023.06-2026.06*

- **Off-road navigation: MPPI** control with learned ensemble neural vehicle dynamics on real UGVs.
- **UGV-UAV multi-robot exploration: C++/ROS2, SLAM/LIO (FAST-LIO, LIO-SAM); 2 KR patents.**
- **VLM-based navigation:** trained transformer navigation policies (CLIP, SigLIP2) on A100 clusters.

RESEARCH EXPERIENCE

Dynamic Robot Control and Design Lab (DRCD), KAIST *Daejeon, South Korea*
Visiting Researcher *2022.06-2026.06*

Advisor: Prof. Hae-Won Park

- **Project: Learning based perceptive quadrupedal robot locomotion in the wild terrain**
 - Impulse-scaling-law Bezier trajectory optimization (Newton's method) for multi-gait running data.
 - Transformer VAE representation learning + RL finetuning (Isaac Gym) on KAIST HOUND.

Computational Control Engineering Lab (CoCEL), POSTECH *Pohang, South Korea*
Undergraduate Researcher *2022.02-2024.02*

Advisor: Prof. Soohee Han

- **Project: Development of flying squirrel drone**
 - Board design; integral backstepping Lyapunov-stable controller; onboard Kalman filter.
 - SE(3) drone dynamics simulation; Mocap/GPS data collection for neural dynamics training.

PUBLICATIONS

*indicates equal contribution

Journal Article

1. Agile perceptive multi-skill locomotion for quadrupedal robots in the wild

Jun-Gill Kang*, Jaehyun Park*, Tae-Gyu Song, Joon-Ha Kim, Seungwoo Hong**, and Hae-Won Park**

Science Robotics [July. 2026. Cover Article], 2026

Page : [click](#)

2. A highly maneuverable flying squirrel drone with agility-improving foldable wings

Dohyeon Lee*, **Jun-Gill Kang***, and Soohye Han

IEEE Robotics and Automation Letters (**RA-L**) with IROS, 2025

Page : [click](#)

3. Task-Oriented Occupancy Grid Mapping through Active Data Management

Jinche La, **Jun-Gill Kang**, and Dasol Lee

IEEE Robotics and Automation Letters (**RA-L**), 2025

Video : [click](#)

4. Development of Dual-Unit Ceiling Adhesion Robot System With Passive Hinge for Obstacle Traversal Under Kinodynamic Constraints

Young-woon Song, **Jun-Gill Kang**, and Son-Cheol Yu

IEEE Access, 2023

Page : [click](#)

Conference Proceedings

5. Diffusion ReRoll: Revisable Denoising for Robotic Sequential Prediction

Seonsoo Kim, Seongil Hong, and **Jun-Gill Kang**

Conference on Robot Learning (**CoRL**), 2026, **Spotlight (top 4.4%)**

Page : [click](#)

6. Disentangled Multi-Context Meta-Learning: Unlocking Robust and Generalized Task Learning

Seonsoo Kim*, **Jun-Gill Kang***, Taehong Kim, and Seongil Hong

Conference on Robot Learning (**CoRL**), 2025

Page : [click](#)

7. A Highly Maneuverable Flying Squirrel Drone with Controllable Foldable Wings

Jun-Gill Kang*, Dohyeon Lee*, and Soohye Han

IEEE/RSJ International Conference on Intelligent Robots and Systems (**IROS**), 2023

Page : [click](#)

8. Development of Safety-Inspection-Purpose Wall-Climbing Robot Utilizing Aerial Drone with Lifting Function

Young-woon Song, Taesik Kim, Meungsuk Lee, Sehwan Rho, Jason Kim, **Jun-Gill Kang**, and Son-Cheol Yu.

The 18th International Conference on Ubiquitous Robots (UR), 2021

Conference Workshop & Technical Papers

9. PointNT: Point Navigation Transformer

Jun-Gill Kang*, Taehong Kim*, Seonsoo Kim, Jihong Min, Seongil Hong and Kiho Kwak

IEEE/RSJ International Conference on Intelligent Robots and Systems Workshop (IROS), 2025 Video : [click](#)

10. Fast, Perceptive Quadrupedal Locomotion in Complex Terrain

Jun-Gill Kang, Jaehyun Park, Tae-Gyu Song, and Hae-Won Park

IEEE International Conference on Robotics and Automation Workshop (ICRAW), 2024

Page : [click](#)

11. A Robust, Task-Agnostic and Fully-Scalable Voxel Mapping System for Large Scale Environments

Jinche La, **Jun-Gill Kang**, and Dasol Lee

arXiv preprint, 2024

Video : [click](#)

MEDIA & PRESS

Flying squirrel drone Pressed and interviewed from diverse international and domestic press. Informal interview from IEEE Spectrum (Evan Ackerman), [New atlas \(Cover\)](#), [Tech Xplore \(Cover\)](#), [SBS \(Korea major press\)](#), [YTN \(Korea major press\)](#) and many others.

KAIST HOUND multi-skill locomotion (Science Robotics) Covered by international and domestic press.
[IEEE Spectrum \(Video Friday\)](#), [Interesting Engineering](#), [Tech Xplore](#), [EurekAlert! \(AAAS\)](#), [Earth.com](#), [Yahoo Tech](#),
[MSN \(Spain\)](#), [DongA Science](#) and many others.

AWARDS AND HONORS

Outstanding Reviewer *Conference on Robot Learning (CoRL 2026)* 2026
Selected as one of **99** Outstanding Reviewers among all CoRL 2026 reviewers ([click](#)).

Science Robotics Cover Article *Science Robotics, Vol. 11, Issue 116* 2026
“Agile perceptive multi-skill locomotion for quadrupedal robots in the wild” selected as the issue cover ([click](#)).

Mu-Eun-Jae Award *Pohang University of Science and Technology (POSTECH)* 2022
Select one student every year among all total graduating students.

Talent Award of Korea *Deputy Prime Minister and Minister of Education award* 2020
For the spirit of challenge and continuous efforts on robotics. Select only 100 talented people every year in South Korea from diverse area (Athlete, Researcher, Talents, CEO, etc.)

Best undergraduate research *Pohang University of Science and Technology (POSTECH)* 2020-2022
Awarded every time for undergraduate research projects (4 times in a row)

GRANTS AND FELLOWSHIPS

Creative IT Engineering Scholarship, Korea Government 2019 - 2021
15K USD + Half year study abroad full funding (Stony Brook University, NY), 10 people in South Korea

Research Officers for National Defense Scholarship, Korea Government 2021-2023
15K USD, 20 people in South Korea

SERVICE TO PROFESSION

Reviewer for IROS (2024, 2025), CoRL (2025, 2026 – [Outstanding Reviewer](#)), RA-L (2026)

SKILLS

Python, C, C++, MATLAB, Isaac Gym, Isaac Sim, Isaac Lab, PyTorch, ROS2, ROS1, Docker, Git, OpenCV
Outreach & Communication: Create and manage personal research youtube channel ([click](#)) to communicate robotics research. 8,793,395 views total (November 2026), over 13.1K subscribers now.