

Kyuhwan Shim

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🌐 <https://underthelights.github.io>
in kyuhwan-shim

EDUCATION	Seoul National University , Seoul, Korea	
	Master Student in Graduate School of Artificial Intelligence	Sep 2024 – Present
	Sogang University , Seoul, Korea	
	Bachelor of Engineering in Computer Science	Mar 2019 – Aug 2024
RESEARCH EXPERIENCE	Chungnam Science High School , Chungnam, Korea	Mar 2016 – Feb 2019
	LG AI Research	
	Research Scientist Intern, Physical Intelligence Lab	Nov 2025 – Present
	Universität Bonn, Deutschland	
WORK EXPERIENCE	Visiting Student Researcher, Autonomous Intelligent Systems Group	Jul 2024 – Aug 2024
	Seoul National University	
	Undergraduate Student Researcher, Biointelligence Lab	Dec 2023 – Aug 2024
	ExploreCSR, Graduate School of Data Science & Google Research	Dec 2023 – Feb 2024
WORK EXPERIENCE	TIDYBOY-DSPL , Seoul, Korea	Mar 2024 – Aug 2024
	Vision Engineer	
	▪ Robocup2024 Team from Seoul National University, Pusan National University	
	▪ Developed Robot Vision Pipeline for real-time environment understanding	
	Nota Inc. , Seoul, Korea	Mar 2023 – Aug 2023
	Machine Learning Engineer Intern	
	▪ Developed Vision-based Pipeline Models for Intelligent Traffic System on Edge Device	
	▪ Construct Datalake and ML Pipeline on AWS and GCP	
	OCONNECT , Ulsan, Korea	Jun 2020 – Feb 2023
	Co-Founder, Chief Design & Operating Officer	
AWARDS &ACTIVITIES	▪ [LINK] UNIST Based Student Venture which makes Easy-Insert Socket, OneStep	
	▪ R&D Didimdol, JAMES DYSON AWARD, Pre-startup Package, Youth Entrepreneurship Academy	
	Yeongdong Firestation , Yeongdong, Chungbuk, Korea	
	Conscripted Firefighters (Military Duty)	Aug 2020 – Apr 2022
	Encouragement Award , Seoul National University	2024, 2025
	Finalist (Top 3) , Robocup Federation	Aug 2024
	Finalist (Top 2) , Seoul National University	2024
	Top 30 & Talent Pool , Samsung Advanced Institute of Technology & DACON	Sep 2023
	Top 30 , LG AI Research & Ministry of Employment and Labor	Sep 2023
	Grand Prize , Gangseo-gu Office	2023
SCHOLARSHIPS	Grand Prize , National Information Society Agency, Ministry of Science and ICT	2022
	Excellence Award , Chungnam Science Fair (64th)	2018
	Special Prize , Chungnam Science Fair(63th)	2017
	SNU AI Fellowship , Seoul National University	2024
MEDIA	Sogang University Alumni Scholarship , Sogang University Alumni Association	2022-2024
	Priest Villarreal Memorial Smilegate Scholarship, General Scholarship, Startup Talents Scholarship	
	Albatross SW Scholarship , Sogang University	2019
	Excellence Paper Award in the Undergraduate Division at KCC 2024 , Sogang People	Jun 2024
MEDIA	'Nunettine' wins Grand Prize at Gangseo-gu Big Data Contest , Sogang People	May 2023
	'DAVENGERS' wins BIGCONTEST Data Analytics Innovation League , Sogang People	Dec 2022

PUBLICATIONS

INTERNATIONAL CONFERENCE

- [C3] **ESPADA: Execution Speedup via Semantics Aware Demonstration Data Downsampling for Imitation Learning**, Byungju Kim, Pahk Jinu, ChungWoo Lee, Jaejoon Kim, Jangha Lee, Theo Taeyeong Kim, Kyuhwan Shim, Jun Ki Lee, Byoung-Tak Zhang[†]
RA-L 2026 (Under Review)
- [C2] **Mixture of Action Queries for Action Chunking Policies**, Suhyung Choi, Youngseok Joo, Hyundo Lee, Kyuhwan Shim, Kisung Shin, ChungWoo Lee, Jun Ki Lee, Byoung-Tak Zhang[†]
ICRA 2026 (Under Review)
- [C1] **CLIP-RT : Learning Language-Conditioned Robotic Policies from Natural Language Supervision**, Gi-Cheon Kang*, Junghyun Kim*, Kyuhwan Shim, Jun Ki Lee[†], Byoung-Tak Zhang[†]
Robotics: Science and Systems (RSS), 2025
Conference of Robot Learning (CoRL) 2024, Workshop on Language and Robot Learning

DOMESTIC JOURNALS

- [D4] **Scaling Language-Conditioned Policies with Fast and Lightweight Architectures**, Junghyun Kim*, Gi-Cheon Kang*, Kyuhwan Shim, Eungseo Kim, Jun Ki Lee[†], Byoung-Tak Zhang[†]
Korea Computer Congress 2024
🏆 Excellent Presentation Award
- [D3] **Generalizing Language-Conditioned Robotic Policies via Large Language Models**, Junghyun Kim*, Gi-Cheon Kang*, Kyuhwan Shim, Eungseo Kim, Jun Ki Lee[†], Byoung-Tak Zhang[†]
Korea Computer Congress 2024
🏆 Excellent Presentation Award
- [D2] **Stochastic Trajectory Diversification for Language-based Robot Action Learning**, Junghyun Kim*, Gi-Cheon Kang*, Kyuhwan Shim, Jun Ki Lee[†], Byoung-Tak Zhang[†]
Korea Software Congress 2024
🏆 Excellent Presentation Award
- [D1] **KIRINO: An Interactive Chatbot System for User Persona**, Geon Choi*, Ganghun Kim*, Hyunjae Kim*, Kyuhwan Shim*, Myoungwan Koo[†]
Korea Computer Congress 2024
🏆 Excellent Paper Award

TEACHING
EXPERIENCE

Artificial Intelligence (4190.408), Seoul National University Mar 2025 – Jun 2025
Translation Volunteer, Khan Academy & Chungnam Science High School Jun 2017 – Dec 2017

SPEECH

- **[PDF] Seminar** Samsung DICON Challenge - Domain Adaptation @ Release(Sogang CS) Dec 2023
- **[PDF] Seminar** Dive into YOLOv8 @ Nota Inc. Mar 2023
- **[PDF] Undergraduate Speech** at Carbon Neutral Workshop @ Shinhan Card & World Bank 2023

ENTREPRENEUR

OCONNECT - a student venture based at UNIST, founded to address usability challenges in everyday life. The team developed **ONE STEP**, a rotating, easy-to-plug-in electrical outlet designed to enable more intuitive and convenient plug insertion. insertion.

Awards

- **JAMES DYSON AWARD 2022 - Nat'l, Korea**, James Dyson Foundation
• Winner (TOP 3), International Competetion Jul 2022
- **PIN UP Concept Design Award 2021**, KAID
• BEST 100 in Living Goods Design Dec 2021
- **Busan-Ulsan-KyungPook Startup Day Innovation Ventures League**
Samsung Electronics
KyungPook, Ulsan, Busan Creative Econ. & Innov. Center
• Excellence Prize at Futures' League Dec 2021
- **Challenge K-Startup Expo : Collegiate Competition**
Ministry of SMEs and Startups,
Korean Institute of Startup & Entrepreneurship Developement

- Top 10, Offline Exhibition Oct 2021
- Top 50, Offline Exhibition Aug 2019
- **Social Challenge alpha 7**, OhMyCompany, BSS, LISCC
 - Challenge Award, Crowd Funding (Funded 1,424,000 KRW) Sep 2020 – Dec 2020
- **Ulsan Collegiate Startup Excellent Idea Contest**
Ulsan Creative Econ. & Innov. Center
 - Winner : Grand Prize Nov 2020
- **Institute of Science & Technology Startups Competition**
KAIST, GIST, DGIST, UNIST, POSTECH
 - Representative of UNIST (Top 2 at UNIST) Dec 2020
 - Representative of UNIST (Top 3 at UNIST) Nov 2019

Fundings & Support Programs

- **DIDIMDOL First Step - Startup Growth Development Project**,
Ministry of SMEs and Startups,
 - Recommended from Ulsan Creative Econ. & Innov. Center Aug 2022 – Jul 2023
- **Ulju Youth Startup Academy**, Ulsan Youth Startup Center Mar 2022 – Dec 2022
- **Pre-IBK Changgong @ UNIST**, UNIST, IBK Changgong Jul 2022 – Nov 2022
- **Private-Sector Open Start-up Revitalization Project**,
Ulsan Creative Econ. & Innov. Center May 2022 – Oct 2022
- **BUSAN BIGS Program**,
Busan-si, KSD, KHUG, KOSPO, HF, KIBO, Busan PA, BNK Mar 2022 – Sep 2022
- **Innopolis Campus for Ulsan Collegiate**, UNIST, Innopolis Jun 2021 – Aug 2022
- **12th UEPA Startup Incubator**, Ulsan Youth Startup Center Mar 2021 – Dec 2021
- **SBC Youth Entrepreneurship Academy**, Korea SMEs and Startups Agency
 - Most Funded Startup Company (100,000,000 KRW)
 - Excellent Completion at Pre-School
 - 'Pre-School' Completion of Excellence & Youth Startup Academy Nov 2020 – Nov 2021
- **UNIST UNICORN Start-Up Support Program**, UNIST
 - Funding (12,000,000 KRW)
 - Participated for Four Semesters Sep 2019 – Feb 2021
- **KISED Pre-Startup Package (General Field)**,
Korea Institute of Startup & Entrepreneurship Development
 - Most Funded (70,000,000 Won) Apr 2020– Dec 2020

Media Coverage

- **UNIST Startup OCONNECT wins at JAMES DYSON AWARD 2022**,
UNIST Press, CHOSUN Ilbo, Segye Ilbo, Sisa-news, Newsis Feb 2022
- **UNIST 2021 Innopolis Performance Presentation**,
UNIST Press, UlsanDaily, ETNews Feb 2022
- **UNIST UNISPARK for Young Entrepreneurs** UNIST Magazine 2021 Winter Dec 2021
- **Southeast Venture Competition held by UNIST Lab Startup Innovation Group**
The Korea Economy TV Dec 2021
- **"New evolution of electrical outlets..." OneStep is released**
The Korea Economic Daily Dec 2021
- **"Make a 'National Outlet' which 'Connects' warmth to each other"**
UNIST Magazine 2021 Spring Feb 2021
- **"Doing businesses regardless of COVID-19" - Leap forward with technology**
SBS, UBC Feb 2021