

JINMO KIM

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EDUCATION

M.S. in Computer Science and Engineering , POSTECH Computer Vision Lab., advised by Prof. Jaesik Park.	Feb 2023 - Present
B.S. in Computer Science and Engineering , POSTECH GPA: 3.83 / 4.3 (<i>Cum Laude</i>)	Feb 2019 - Feb 2023
Sejong Science High School	Mar 2016 - Feb 2019

RESEARCH INTERESTS

3D LiDAR Vision	Object detection, Semantic segmentation
Computer Graphics	Neural rendering (NeRF, SDF)

PUBLICATIONS

Domestic

- [1] **Jinmo Kim**, Kwonyoung Ryu and Jaesik Park
고정형 라이다 환경에서의 3차원 객체 인식 도메인 적응 기술 개발
제 35회 영상처리 및 이해에 관한 워크숍 (IPIU), Feb. 2023

EXPERIENCES

Research Participation in POSTECH CV Lab Undergraduate Research Participant	Sep 2021 - Feb 2023
<ul style="list-style-type: none">• Research of multi-dataset learning in 3D semantic segmentation.• 3D object detection in embedded system(solid-state LiDAR with Jetson Orin).• Developed cylindrical LiDAR and omnidirectional camera hardware system.• Calibration between LiDAR and omnidirectional camera.• Investigate neural rendering methods for the camera-LiDAR system.	
Development of 3D POSTECH Indoor Map Dataset with NeRF Developer	Apr 2022 - Jan 2023
<ul style="list-style-type: none">• 2022 Undergraduate Group Research Program(UGRP).• Participate as a developer of calibration algorithm and NeRF.	
Development of Delivery Robot with Legged-Wheel Structure SLAM Developer	May 2021 - Jan 2022
<ul style="list-style-type: none">• 2021 Undergraduate Group Research Program(UGRP).• Implemented 2D LiDAR integration in the robot.• Developed SLAM algorithms for the robot.	
POWER-ON (Robotics Club in POSTECH) Leader	Club Homepage
<ul style="list-style-type: none">• Robotics student club for undergraduates in POSTECH.• Participate as a member until the summer of 2021.• Participate as a club leader until the summer of 2022.	
LaCar (Team of Korean I-Corps Program) EM(Member)	Jun 2020 - Feb 2021
<ul style="list-style-type: none">• 2020 Korean I-Corps Program.• Conducted a customer discovery on solid-state LiDAR calibration system and designed a business model.	
Event Detection and Handwritten Text Recognition in Lecture Video Leader	May 2020 - Jan 2021

- 2020 Undergraduate Group Research Program(UGRP).
- Leader of the project.
- Implemented video event detection and handwritten text recognition.

PONIX AI Speaker (AI Speaker for POSTECH Students) Developer May 2019 - Jan 2020

- 2019 Undergraduate Group Research Program(UGRP).
- Implemented STT, TTS, and backend API by Python.

C_loala (Dashboard for Research Papers' Topic Analysis) Leader of Algorithm Team Jul 2019 - Dec 2019

- Developed TF-IDF & word frequency algorithm for research papers by Python.
- Implemented LDA algorithm for research papers by Python.

SCHOLARSHIPS & AWARDS

Participation Award 2022 UGRP(Undergraduate Group Research Program) Feb 2023

- Topic: Development of 3D POSTECH Indoor Map Dataset with NeRF

GLP(Global Leadership Program) Merit-based Scholarship, ₩3,000,000(\$2,600) Mar 2022

Top Award 2021 UGRP(Undergraduate Group Research Program) Feb 2022

- Topic: Development of Delivery Robot with Legged-Wheel Structure

GLP(Global Leadership Program) Merit-based Scholarship, ₩3,000,000(\$2,600) Sep 2021

GLP(Global Leadership Program) Merit-based Scholarship, ₩3,000,000(\$2,600) Mar 2021

GLP(Global Leadership Program) Merit-based Scholarship, ₩3,000,000(\$2,600) Sep 2020

Top Award 2019 UGRP(Undergraduate Group Research Program) Feb 2020

- Topic: PONIX AI Speaker

SKILLS

Programming Languages	C/C++, Python
Tools	PyTorch, Open3D, OpenCV, Git(GitHub, GitLab)
Exposure to	PCL, OpenGL, GLSL, Verilog

TEACHING EXPERIENCES

2022-2 Student Mentoring Program Sep 2022 - Dec 2022

- Mentoring program for POSTECH undergraduate students.
- Participate as mentor of **CSED101 Programming & Problem Solving** course.

2022-1 CSE Student Mentoring Program Mar 2022 - Jun 2022

- Mentoring program for POSTECH CSE undergraduate students.
- Participate as mentor of **CSED261 Discrete Math. for Computer Science** course.

2022-1 Student Mentoring Program Mar 2022 - Jun 2022

- Mentoring program for POSTECH undergraduate students.
- Participate as mentor of **CSED101 Programming & Problem Solving** course.

2021-2 Student Mentoring Program Sep 2021 - Dec 2021

- Mentoring program for POSTECH undergraduate students.
- Participate as mentor of **CSED101 Programming & Problem Solving** course.

2021-1 CSE Student Mentoring Program	Mar 2021 - Jun 2021
<ul style="list-style-type: none"> • Mentoring program for POSTECH CSE undergraduate students. • Participate as mentor of CSED261 Discrete Math. for Computer Science course. 	
2021-1 Student Mentoring Program	Mar 2021 - Jun 2021
<ul style="list-style-type: none"> • Mentoring program for POSTECH undergraduate students. • Participate as mentor of CSED101 Programming & Problem Solving course. 	
POSTECH x CREATOR Teacher, Course Video Editor	May 2020 - Feb 2022
<ul style="list-style-type: none"> • Making online lecture on basic Arduino development for POSTECH undergraduate students. • Covers basic concepts of Arduino programming, and complex applications such as PWM, UART, I2C, etc. 	
Soc,Soc(Story Of Creativity, Story Of Camp) Camp	Jan 2020
<ul style="list-style-type: none"> • Educational volunteer program. • Teaching middle school students who cannot easily encounter science programs. • Taught basic electronic circuits and made a creative circuit town by using copper tapes. 	
EXTRACURRICULAR ACTIVITIES	
StarLovers(Amateur Astronomy Club in POSTECH) Member	Sep 2019 - Present
Clear (Badminton Club in POSTECH) Member	Mar 2019 - Present