JINMO KIM

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EDUCATION

M.S./Ph.D. Integrated Student in Artificial Intelligence, SNU	Sep 2023 - Present
- Visual & Geometric Intelligence Lab., advised by Prof. Jaesik Park.	
M.S. Student in Computer Science and Engineering, POSTECH	Feb 2023 - Aug 2023
- Computer Vision Lab., advised by Prof. Jaesik Park.	
B.S. in Computer Science and Engineering, POSTECH	Feb 2019 - Feb 2023
- GPA: 3.83 / 4.3 (<i>Cum Laude</i>)	
Sejong Science High School	Mar 2016 - Feb 2019

RESEARCH INTERESTS

3D Vision Image-to-3D, 3D LiDAR Perception, Robot Vision

Computer Graphics Neural Graphics (Novel View Synthesis, Surface Reconstruction)

PUBLICATIONS

Domestic

- [1] Kwonyoung Ryu, **Jinmo Kim** and Jaesik Park 다시점 이미지와 회전형 라이다를 활용한 열린 어휘집합의 CLIP 특징점 생성과 3차원 의미론적 물체분할 제 36회 영상처리 및 이해에 관한 워크샵 (IPIU), Feb. 2024
- [2] Jinmo Kim, Kwonyoung Ryu and Jaesik Park 고정형 라이다 환경에서의 3차원 객체 인식 도메인 적응 기술 개발 제 35회 영상처리 및 이해에 관한 워크샵 (IPIU), Feb. 2023

EXPERIENCES

Research Participation in POSTECH CV Lab Undergraduate Research Participant

Sep 2021 - Feb 2023

- 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.

Undergraduate Group Research Program(UGRP) Developer

- 2022 UGRP: Leader and Developer for building 3D POSTECH indoor map with NeRF (Calibration, NeRF)
- 2021 UGRP: Developer of delivery robot with legged-wheel structure (2D LiDAR SLAM)
- 2020 UGRP: Leader and Developer for event detection and handwritten text recognition in lecture video
- 2019 UGRP: Developer of PONIX AI speaker (STT/TTS/Python backend API)

POWER-ON (Robotics Club in POSTECH) Leader

Club Homepage

- Robotics student club for undergraduates in POSTECH.

• Participate as a club leader

• Participate as a member.

Feb 2019 - Aug 2021, Aug 2022 - Aug 2023

Aug 2021 - Aug 2022

LaCar (Team of Korean I-Corps Program) EM(Member)

Jun 2020 - Feb 2021

• 2020 Korean I-Corps Program.

• Conducted a customer discovery on solid-state LiDAR calibration system and designed a business model.

SCHOLARSHIPS & AWARDS

GLP(Global Leadership Program) Merit-based Scholarship, KRW 3,000,000(USD ~2,600)

• Received at Sep 2020, Mar 2021, Sep 2021, Mar 2022.

Top Award 2021 UGRP(Undergraduate Group Research Program)

Feb 2022

• Topic: Development of Self-driving Delivery Robot with Legged-Wheel Structure

Top Award 2019 UGRP(Undergraduate Group Research Program)

Feb 2020

• Topic: Development of PONIX AI Speaker

SKILLS

Programming Languages

C/C++, Python

Libraries / Tools

PyTorch, TensorFlow, Open3D, OpenCV, Git(GitHub, GitLab), Docker

Exposure to PCL, OpenGL, GLSL, Verilog, MATLAB, Kotlin

TEACHING EXPERIENCES

Mueunjae Student Mentoring Program

• Mentoring program for POSTECH undergraduate students.

• Participate as a mentor of CSED101 Programming & Problem Solving course.

• Participated in spring and fall semesters of 2022.

Mar 2022 - Jun 2022, Sep 2022 - Dec 2022

• Participated in spring and fall semesters of 2021.

Mar 2021 - Jun 2021, Sep 2021 - Dec 2021

CSE Student Mentoring Program

- Mentoring program for POSTECH CSE undergraduate students.
- Participate as a mentor of CSED261 Discrete Math. for Computer Science course.
- Participated in spring semesters of 2021 and 2022.

Mar 2021 - Jun 2021, Mar 2022 - Jun 2022

POSTECHX CREATOR Lecturer, Course Video Editor

May 2020 - Feb 2021

- 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 Mentor

Jan 2020

- 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 - Aug 2023

Clear (Badminton Club in POSTECH) Member

Mar 2019 - Aug 2023