JINMO KIM

Seoul National University, 1 Gwanak-ro, Gwanak-gu, Seoul, Republic of Korea
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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 (***Cum Laude***)

Sejong Science High School — Mar 2016 - Feb 2019

RESEARCH INTERESTS

3D Vision — 3D LiDAR Perception, Robot Vision
Computer Graphics — Neural Graphics(Novel View Synthesis, Surface Reconstruction)

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 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.

Development of 3D POSTECH Indoor Map Dataset with NeRF Developer — Apr 2022 - Jan 2023

- 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

- 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

- 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

- 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_oala (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 Self-driving 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: Development of PONIX AI Speaker

SKILLS

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

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

- 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

- 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

- 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

- 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