

# Jiho Park

qkrwlgh0314@yonsei.ac.kr | GitHub

## EDUCATION

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### Yonsei University

*B.S. of Electrical and Electronics Engineering  
(1.5 years of absence due to military service)*

Seoul, Korea

Mar 2019 – Present

GPA: 4.10/4.30

### The University of Texas at Austin

*Exchange Student in Electrical and Computer Engineering*

Texas, USA

Fall 2024 (expected)

## RESEARCH INTEREST

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I'm interested in how agent can obtain actionable insights from observations within a Dynamic 3D World! Therefore, I have a broad research interest in the fields of energy-based/flow-matching models for planning/reasoning, egocentric multi-sensory learning, model-based RL, robot learning and 3D representation, among others.

## RESEARCH EXPERIENCE

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### MLCS(Machine Learning and Control Systems) Lab, Yonsei University

Apr 2024 - Present

*Undergraduate Intern*

- Led research on the topic of Coarse-to-fine Behavior Cloning with Action Sequence Quantization
- Developed a ROS-based system for robotic manipulation, incorporating the Kinova-Jaco arm, three RGBD cameras, and an AI model

### MIR(Multimodal AI) Lab, Yonsei University

Aug 2023 - Jan 2024

*Undergraduate Intern*

- Studied extensively in the field of 3D Vision, covering 3D Representations, Static & Dynamic 3D Scene Reconstruction
- Developed a large-scale 3D Talking Head Dataset for speech-driven face generation

## WORK EXPERIENCE

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### RebuilderAI

Jul 2023 - Sep 2023

*Part-time Research Assistant*

- Background image generation for commercial product; built dataset and fine-tuned diffusion model
- Saliency-aware Segmentation for commercial product image

### Uaround

May 2022 - Jun 2022

*Part-time Intern*

- Face similarity modeling for virtual human

## PROJECTS

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### Coarse-to-fine Behavior Transformer with Action Sequence Quantization

May. 2024 - Jul. 2024

- By leveraging the representation power of coarse-to-fine vector quantization, we enabled fast inference and robust performance for behavior cloning.

### 4D Avatars with Deformable Gaussian Splatting (*github*)

Oct 2023 - Nov 2023

- Applied deformable 3D Gaussian Splatting methods along with facial expression prior for better facial reconstruction and controllability
- Awarded 1st place in 3rd YAICON(Yonsei AI Club Conference)

### OOD Detection Research Project (*report*)

Jun 2023

- Exploring the properties of Generative Model for OOD Detection, with Hierarchical Self-Conditioned AutoEncoder
- Achieved 1st place in the DeepLearningLab(EEE4423) course; invited by the TA to co-author a paper

### Camera Pose Estimation for Tensor Radiance Fields (*report*)

Sep 2023 - Nov 2023

<b>Diffusion Model Web Application Project</b> ( <i>github</i> )	Apr 2023 - May 2023
<ul style="list-style-type: none"> <li>• Sketch &amp; Prompt to Image using ControlNet; fine-tuned the model and applied to the web</li> <li>• Awarded 1st place in 2nd YAICON</li> </ul>	
<b>Virtual Hand Drawing Simulator</b> ( <i>github</i> )	Nov 2022 - Dec 2022

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## EXTRACURRICULAR

<b>Yonsei AI (YAI)</b>	Jan 2023 - Present
<i>Academic Team Leader(Jan 2024 - Present)</i>	
<ul style="list-style-type: none"> <li>• An AI study club that facilitates the collective pursuit of knowledge among students, fostering collaboration and project development centered on deep learning research.</li> <li>• Presentation Materials: <i>3D Gaussian Splatting, Diffusion Model, SE(3)-DiffusionFields, NeRF for Robotics</i></li> </ul>	
<b>Electrical &amp; Electronics Honor Society, Yonsei</b>	Jul 2022 - Jun 2023
<b>Data Science Lab, Yonsei</b>	Jan 2022 - Dec 2022

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## SCHOLARSHIPS

<b>Korea-U.S. Advanced Technology Youth Exchange Scholarship</b>	Fall 2024
<i>by Korea Institute for Advancement of Technology(KIAT)</i>	
<ul style="list-style-type: none"> <li>• approx. 9,000 USD for single semester in University of Texas at Austin</li> </ul>	
<b>Yonsei Veritas(High-academic Performers) Scholarship</b>	
<ul style="list-style-type: none"> <li>• Honors: Spring 2022, Fall 2022</li> <li>• High Honors: Spring 2023, Fall 2023</li> </ul>	
<b>Hanseong Son Jae Han Nobel Scholarship</b>	2017 - 2018
<ul style="list-style-type: none"> <li>• approx. 9,000 USD</li> </ul>	

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## MILITARY SERVICE

<b>Republic of Korea Army Sergeant, Honorably Discharged</b>	Sep 2020 - Mar 2022
<i>Heavy Vehicle and Commander Driver</i>	

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## SKILLS

<b>Languages:</b>	Python, C/C++, C#(Unity), Verilog
<b>Languages:</b>	Korean (Native), English (Proficient, TOEFL: 105)