# Chanhyeok Park

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# Introduction

I am Chanhyeok Park, a highly self-motivated undergraduate student at KAIST, School of Computing. I am interested in combining **deep learning** approaches with **3D computer vision**, **reinforcement learning**, **finance**, **and law**. For now, my focus is to seek how deep learning techniques can be employed in **the legal domain**, especially utilizing Large Language Models. Previously, as a research intern at KAIST Visual AI Group, I worked on decomposing 3D shapes with tight bounding boxes without any human supervision with <u>Prof. Minhyuk Sung</u>. I believe that the power of deep learning technologies, integrated appropriately into various fields, will innovate our future.

# EDUCATION

# Korea Advanced Institute of Science and Technology, KAIST

 $2020 \sim \mathbf{Now}$ 

B.S. in School of Computing (Major) & Intellectual Property (Minor) GPA:  $4.05\ /\ 4.3$ 

#### Publication

- 1. 인공지능 산출물 보호에 관한 연구 인간의 개입 정도를 중심으로 (A Study on the Protection of AI-Generated Works Focusing on the Degree of Human Involvement) 박찬혁(Chanhyeok Park), 전우정 계간저작권(Copyright Quarterly), 2024년 겨울호, 제37권 제4호(통권 제148호)
- 2. <u>Split, Merge, and Refine: Fitting Tight Bounding Boxes via Over-Segmentation and Iterative Search</u> Chanhyeok Park, Minhyuk Sung International Conference on 3D Vision(3DV), 2024
- 3. <u>기술유출 피해금액 산정 등에 관한 연구(A Study on the Calculation of Technology Leakage Damage)</u> 전우정, 박성필, 박태정, 김범태, 정유경, 이창곤, 김기범, **박찬혁(Chanhyeok Park)**, 홍유승 대검찰청 용역연구과제, 2023

#### EXPERIENCE

• Researcher, Researching and developing legal AI system Legal AI researcher at Intellicon Inc.

 $2024.10 \sim Now$ 

- AI Developer, Developing Carbon AI System 2024.08 ~ Now Developing Retrieval-Augmented Generation(RAG) Large Language Models(LLM) for climate, environmental, urban in newtonne. Startup.
- Research Assistant, Processing History Text Data using AI
   2024.08 ~ 2024.12
   Joint research project with Prof. Donghyun Woo.
   Processing historical data including North Korea, Atomnaya Energiya Journal to support the claim in history research.
- Researcher, Summarizing Precedents using Large Language Models  $2023.10 \sim 2024.02$  Research project with Patent Court of Korea. Summarizing judicial precedents using deep learning to help the judges figure out the case more easily.
- Research Intern, Tight Bounding Boxes for Shape Decomposition 2022.01 ~ 2023.03 Research intern at <u>KAIST Visual AI Group</u> under supervision of <u>Prof. Minhyuk Sung</u>.

  After splitting 3D meshes into small partitions, we merge the partitions with a criterion that induces

tight bounding boxes. Then, we refine the boxes using MCTS to tighten them by fixing the errors. Check out the <u>paper</u> for more details.

• Quant Researcher, High-Frequency Trading Strategy using Order Book  $2022.06 \sim 2022.10$  Quant research intern at Schperics Inc.

Finding high-frequency trading strategy using deep learning with cryptocurrency order book data.

#### • Research Intern, Long Term Video Prediction

 $2021.06 \sim 2021.12$ 

Research intern at <u>KAIST Vision and Learning Lab</u> under supervision of <u>Prof. Seunghoon Hong</u>. Solving frame collapse problem when generating long-term videos. Based on <u>SRVP</u>, approaches like <u>VQVAE</u>, <u>Temporal Abstraction</u> and Adversarial Training were explored to mitigate the error accumulation in the latent vector which is a common problem in auto-regressive models.

# AWARDS, HONORS

1. Surim Foundation Talent Scholarship, 2024 Fall

Scholarship supported by the Surim Foundation to set an example for others by honoring a student who has made an outstanding achievement or significant contributions while enrolled in an undergraduate program.

2. <u>Kiturami Foundation</u> College of Engineering Scholarship, 2024 Fall

Scholarship supported by the Kiturami Foundation to students in engineering fields. Selected as two out of whole KAIST College of Engineering undergraudate students.

3. CoE Leadership Award, KAIST College of Engineering, 2023 Fall Awarded to top students who achieved high research accomplishments.

4. Dean's List, KAIST School of Computing, 2022 Fall

Awarded to top students who achieved high academic accomplishments.

5. National Science & Technology Scholarship, 2022 Spring Scholarship supported by the Korean government to students in science & engineering fields.

6. Dean's List, KAIST School of Freshman, 2020 Fall

Awarded to top students who achieved high academic achievements.

7. Hanseong SonJaeHan Scholarship (6th), 2019

Awarded to who has creative thoughts and passion, and has a high chance of receiving a novel prize.

# TEACHING

• TA of Machine Learning for 3D Data (CS479), 2023 Fall Mentored team projects on 3D deep learning to KAIST students.

- TA of Modern Macroeconomic Theory and Dynamic Programming (HSS310), 2023 Fall
- TA of Introduction to Programming (CS101), 2021 Fall, 2024 Spring, 2024 Fall Taught basics of Python language to KAIST students.
- Tutor of KAIST Cyber Education for Gifted, 2020 Fall Taught basics of C language to elementary students.

# SKILLS

2020 ACM-ICPC Seoul Regional 12th place (C, C++)

Python, R, PyTorch, TensorFlow, LaTeX, MATLAB, SageMath, Scala, JavaScript

Last updated on December 14, 2024