

JOOCHAN KIM

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INTEREST

Embodied AI, Data-centric AI, Multimodal AI

EDUCATION

Seoul National University

M.S. in Computer Science and Engineering

Seoul, Korea

Mar 2022 - Aug 2024

- Supervisor: Prof. Byoung-Tak Zhang, Bio-Intelligence Lab
- Thesis: Bias Analysis in Instructional Video Learning [paper]

Yonsei University

B.S. in Computer Science

Seoul, Korea

Mar 2016 - Aug 2021

PUBLICATIONS

* denotes equal contributions

- **The Losing Winner: An LLM Agent that Predicts the Market but Loses Money**
Youwon Jang, Joochan Kim*, Byoung-Tak Zhang*
NeurIPS 2025 Workshop on Generative AI in Finance [paper]
- **Continual Vision-and-Language Navigation**
Seongjun Jung, Gi-Cheon Kang, Seongho Choi, Joochan Kim, Byoung-Tak Zhang
BMVC 2025 [paper]
- **Exploring Ordinal Bias in Action Recognition for Instructional Videos**
Joochan Kim, Minjoon Jung, Byoung-Tak Zhang
ICLR 2025 Workshop on SCSL & KSC 2023 [paper] [code] [poster] [KSC 2023 paper]
- **Background-aware Moment Detection for Video Moment Retrieval**
Minjoon Jung, Youwon Jang, Seongho Choi, Joochan Kim, Jin-Hwa Kim, Byoung-Tak Zhang
WACV 2025 [paper] [code]
- **Zero-Shot Vision-and-Language Navigation with Collision Mitigation in Continuous Environment**
Seongjun Jeong, Gi-Cheon Kang, Joochan Kim, Byoung-Tak Zhang
Embodied AI Workshop @ CVPR 2024 [paper]
- **Modal-specific Pseudo Query Generation for Video Corpus Moment Retrieval**
Minjoon Jung, Seongho Choi, Joochan Kim, Byoung-Tak Zhang
EMNLP 2022 [paper] [code]

RESEARCH EXPERIENCE

Korea Institute of Science and Technology (KIST)

Intern (Adviser: Dr. Hwasup Lim)

Seoul, Korea

Jan 2025 - Present

- Project: Self-Evolving Embodied AGI Platform Technology through Real-World Experience
 - Addressed a key data bottleneck by developing a trajectory generation pipeline to automatically label 1000+ dynamic simulated environments.
 - Focused on developing robust action models for autonomous driving and mobile manipulation, a core component of the project's VLA goals.
 - Currently exploring two key research directions: (1) enhancing 3D spatial understanding and (2) language-guided approaches for planning.

Agency for Science, Technology and Research (A*STAR)

Intern (Adviser: Dr. Haiyue Zhu)

Singapore, Singapore

Mar 2024 - Aug 2024

- Project: Deep Learning for Intelligent Robotics
 - Engineered an auto-labeling pipeline for robot vision to generate 50k+ instruction-tuning examples for Supervised Fine-Tuning (SFT)
 - Fine-tuned multimodal LLM with generated dataset
- Deployed custom LLM solutions (LangChain) for automated meeting summarization and robotics-domain recommendations.

RESEARCH PROJECTS

Question Answering using Question Generation

Capstone Design 2

- Propose a method to improve QA model robustness against adversarial attacks by using Question Generation to reduce unnecessary dependencies.

Yonsei University
Sep 2020 - Dec 2020

Effective Ways to Select Dataset from Large Corpus

Capstone Design 1

- Proposed and implemented an approach to reduce dataset size, minimizing training time and computational costs while improving performance.

Yonsei University
Mar 2020 - Jun 2020

ACADEMIC SERVICES

- **Reviewer:** NeurIPS 2025, CVPR 2026

TEACHING

Creative Integrated Design 2

Teaching Assistant

- Advised undergraduate students on their industry-academic cooperation projects.

Seoul National University
Mar 2023 - Jun 2023

Social Engagement - Middle School Students Mentoring

Mentor

- Mentored high school students, facilitating group activities and discussions.

Yonsei University
Jul 2018

HONORS AND AWARDS

Singapore International Pre-Graduate Award

Awardee

A*STAR
Jan 2024

AIM Innovation Track Student Achievement Showcase

Excellence Award

Yonsei University
Dec 2020

Graduation Work Exhibition

Grand Prize

Yonsei University
Dec 2020

Graduation Work Exhibition

Excellence Award

Yonsei University
Jun 2020

TECHNICAL SKILLS

- **Advanced** Python, PyTorch, HuggingFace, Transformers
- **Moderate** LLM Post-Training, Distributed Learning, Git, Linux, Docker, TensorFlow
- **Novice** LangChain, ROS

LANGUAGE PROFICIENCY

Fluent in **English** and Native in **Korean**.

- TOEFL iBT - 102 (Reading: 27, Listening: 29, Speaking: 22, Writing: 24)

REFERENCES

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