Doyoung Kim

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General intelligence in langauge and robotics

Education

CS Department at the Courant Institute, NYU	*Sep 2025 – Present*
PhD, Research in world model, language and robotics	New York, NY
Kim Jaechul Graduate School of AI, KAIST	*Feb 2023 – Aug 2025*
MS, Research in planning and reasoning of LLM	Seoul, South Korea
Department of Mathematical Sciences, KAIST	*Feb 2017 – Aug 2022*[1]
BS in Mathematics and Computer Science (Double Major)	Daejeon, South Korea
Gyeonggi Science High School for the Gifted	*Feb 2014 – Dec 2016*
Mathematics major	Suwon, South Korea

Research Experience

Config Intelligence	*Mar 2025 – Present*
Research intern, Better policy model for robotics	Seoul, South Korea
KAIST AI Research Intern (KAIRI)	*Mar 2022 – Feb 2023*
Research intern, Zero-shot instruction following language models	Seoul, South Korea

Publications

∗ *denotes equal contributions. See Google Scholar or Semantic Scholar for the full publications.*

Preprint:

[P2] **Doyoung Kim***, Jaehyuk Doo*, Minjoon Seo. "TSLM: Tree Structured Language Modeling for Divergent thinking." **Under review at** ICML 2025.

[P1] **Doyoung Kim**, Jongwon Lee, Jinho Park, Minjoon Seo. "How language models extrapolate outside the training data: A case study in Textualized Gridworld." NeurIPS Compositional Learning Workshop 2024. **Under review at** ICML 2025.

Peer-Reviewed Conference Papers:

[C8] Hyeonbin Hwang, **Doyoung Kim**, Seungwon Kim, Seonghyeon Ye, Minjoon Seo. "Self-Explore to Avoid the Pit: Improving the Reasoning Capabilities of Language Models with Fine-grained Rewards." EMNLP Findings, 2024.

[C7] Hyunji Lee*, **Doyoung Kim***, Jihoon Jun, Sejune Joo, Joel Jang, Kyoung-Woon On, Minjoon Seo. "Semiparametric Token-Sequence Co-Supervision." ACL, 2024.

[C6] Hyunji Lee, Sejune Joo, Chaeeun Kim, Joel Jang, **Doyoung Kim**, Kyoung-Woon On, Minjoon Seo. "How Well Do Large Language Models Truly Ground?" NAACL, 2024.

[C5] Seonghyeon Ye*, **Doyoung Kim***, Sungdong Kim, Hyeonbin Hwang, Seungwon Kim, Yongrae Jo, James Thorne, Juho Kim, Minjoon Seo. "FLASK: Fine-grained Language Model Evaluation based on Alignment Skill Sets." **ICLR Spotlight, 2024**.

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[1] Leave of absence for mandatory military service, Jan 2018 – Sep 2019

[C4] Seungwon Kim, Sejune Joo, **Doyoung Kim**, Joel Jang, Seonghyeon Ye, Jaemin Shin, Minjoon Seo. "The CoT Collection: Improving Zero-shot and Few-shot Learning of Language Models via Chain-of-Thought Fine-Tuning." EMNLP, 2024.

[C3] Joel Jang, Seungwon Kim, Seonghyeon Ye, **Doyoung Kim**, Lajanugen Logeswaran, Moontae Lee, Kyungjae Lee, Minjoon Seo. "Exploring the benefits of training expert language models over instruction tuning." ICML, 2023.

[C2] Seonghyeon Ye, **Doyoung Kim**, Joel Jang, Joongbo Shin, Minjoon Seo. "Guess the instruction! making language models stronger zero-shot learners." ICLR, 2023.

[C1] Seonghyeon Ye, Joel Jang, **Doyoung Kim**, Yongrae Jo, Minjoon Seo. "Efficiently Enhancing Zero-Shot Performance of Instruction Following Model via Retrieval of Soft Prompt." EMNLP Findings, 2023.

Projects

∗ *denotes equal contributions*

[Pr1] Seonghyeon Ye*, Yongrae Jo*, **Doyoung Kim***, Sungdong Kim, Hyeonbin Hwang, Minjoon Seo. "SelFee: Iterative Self-Revising LLM Empowered by Self-Feedback Generation." 2023.

Invited Talks

National Information Society Agency (NIA) *Jul 2024*

Fine-grained Evaluation for Generative AI

Adobe Research *Aug 2023*

Fine-grained Evaluation for Generative AI

Honors and Awards

Selected Awards:

- College Students Mathematics Competition, Korean Mathematical Society
  - Silver medal, Mathematics Major Division (2020)
  - Bronze medal, Freshmen Division (2017)

Teaching Experiences

Upstage Boostcamp AI Tech *Mar 2024 - Nov 2024*

Machine Reading & Comprehension TA

World Friends ICT Volunteer in Ethiopia *Jul 2017 - Aug 2017*

Coding TA for ICPC Ethiopian Regional Contest candidates in ASTU   Adama, Ethiopia

Professional Services

Student Mentoring:

- Jaehyuk Doo (Jul 2024 - Present), BS at UIUC, Now MS at KAIST AI

Reviewer:

- ACL rolling reviews (Feb, April, June in 2024)
- NeurIPS Workshop on Compositional Learning (2024)
- ICLR main conference (2025)

- ICML main conference (2025)