Minju Gwak

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Github: https://github.com/talzoomanzoo/
Google Scholar: https://scholar.google.com/citations?user=Y-eyDawAAAAJ&hl=en

Education

Georgia Institute of Technology Atlanta, Georgia
M.S. in Computer Science Aug.2026 - (Present)

- Advisor: Alan Ritter
- Research Interests: Foundation Models, Machine Learning
- Relevant Coursework: Computer Vision, Machine Learning, Deep Reinforcement Learning

Yonsei University Seoul, South Korea
M.S. in Artificial Intelligence Mar.2025- Aug.2026 (early graduation)

- Advisor: Jaehyung Kim
- Research Interests: Large Language Models, Machine Learning
- Relevant Coursework: AI Systems, Multimodal Deep Learning, Large Language Model Seminar, Advanced Data Mining, Large-Scale Learning and Inference, Neural Network Reliability Verification, Information Theory, Robot Learning

Underwood International College, Yonsei University Seoul, South Korea
B.A. Justice and Civil Leadership (pre-law)
B.S. Creative Technology Management Graduated Aug.2024

- Relevant Coursework: Introduction to Statistics, Business Statistics, Research Design and Quantitative Methods, Data Visualization, Introduction to Data Science, Machine Learning, Natural Language Processing

Gyeonggi Academy of Foreign Languages Gyeonggido, South Korea
Chinese Language Major (Graduated with Honors x3)

Publications

LaRA: Layer-wise Representation Analysis for Detecting Data Contamination in RL Post-Training
Minju Gwak, Minseo Kwak, Dongseok Lee, Guijin Son, Alan Ritter, Jaehyung Kim
ICML 2026 Workshop on Trustworthy AI4Good
EMNLP 2026 Findings
[Paper]

Revisiting the Uniform Information Density Hypothesis in LLM Reasoning Traces
Minju Gwak, Guijin Son, Jaehyung Kim
NeurIPS 2025 Workshop on Mathematical Reasoning and AI
ACL 2026 Findings
[Paper]

Web-Shepherd: Advancing PRMs for Reinforcing Web Agents
Hyungjoo Chae, Sunghwan Kim, Junhee Cho, Seungone Kim, Seungjun Moon, Gyeom Hwangbo, Dongha Lim, Minjin Kim, Yeonjun Hwang, **Minju Gwak**, Dongwook Choi, Minseok Kang, Gwanhoon Im,

ByeongUng Cho, Hyojun Kim, Jun Hee Han, Taeyoon Kwon, Minju Kim, Beong-woo Kwak, Dongjin Kang, Jinyoung Yeo
NeurIPS 2025 Spotlight
[Paper]

Can You Share Your Story? Modeling Clients' Metacognition and Openness for LLM Therapist Evaluation
Minju Kim, Dongje Yoo, Yeonjun Hwang, Minseok Kang, Namyoung Kim, **Minju Gwak**, Beong-woo Kwak, Hyungjoo Chae, Harim Kim, Yunjoong Lee, Min Hee Kim, Dayi Jung, Kyong-Mee Chung, Jinyoung Yeo
ACL 2025 Findings
[Paper]

Towards Lifelong Dialogue Agents via Relation-aware Memory Construction and Timeline-augmented Response Generation
Kai Tzu-iunn Ong, Namyoung Kim, **Minju Gwak**, Hyungjoo Chae, Taeyoon Kwon, Yohan Jo, Seung-won Hwang, Dongha Lee, Jinyoung Yeo
NAACL 2025
[Paper]

Web Agents With World Models: Learning and Leveraging Environment Dynamics in Web Navigation
Hyungjoo Chae, Namyoung Kim, Kai Tzu-iunn Ong, **Minju Gwak**, Gwanwoo Song, Jihoon Kim, Sunghwan Kim, Dongha Lee, Jinyoung Yeo
NeurIPS 2024 Workshop on System-2 Reasoning at Scale
ICLR 2025
[Paper]

World Models for Web Agents
Hyungjoo Chae, Namyoung Kim, **Minju Gwak**, Gwanwoo Song, Jihoon Kim, Kai Tzu-iunn Ong, Sunghwan Kim, Dongha Lee, Jinyoung Yeo
NeurIPS 2024 Workshop on System-2 Reasoning at Scale
[Paper]

Industrial / Research Experience

Sep. 2025 – Dec. 2025 • **Internship at ONELINEAI, INC** Researched and developed pipelines for enhancing reasoning abilities of LLMs, and data contamination detection in mathematical reasoning benchmarks

Sep. 2024 – Feb. 2025 • **Internship at Language & AGI Lab, Yonsei University** Researched on LLM agents, supervised by Professor Jinyoung Yeo.

Jul. 2020 – Aug. 2020 • **Summer Intership at AIBRAIN, INC** Researched and developed the global strategies for building business models. Analyzed the costs of marketing channels, and made surveys for internal application beta testing.

Jun. 2019 – Jul. 2019 • **Summer Internship at KOREA FOOD FOR THE HUNGRY INTERNATIONAL (KFHI)** Supported a social business project aiding single mothers by planning products, estimating revenue and costs, identifying customers and fundraisers, and designing niche marketing campaigns. Contributed to the project's successful launch and fundraising for future initiatives.

Awards

Nov. 2023 • **Korea Software Industry Association President's Excellence Award Winner** 23 KDT Venture Startup Academy Integrated Project Presentation and Talk Concert (hosted by the Korean Ministry of Employment and Labor, Korea Software Industry Association (KOSA))
- Developed and launched a full stack twitter-like webpage that leverages BERT and Karlo API for 1) generating ethics rate of a post, and 2) generating synthetic profile pictures when given user input (code and demo video in `https://github.com/talzoomanzoo/spring-boot-django-react-kotlin-RIBBITSNS`)

Aug. 2022 • **First Place for Graduation Capstone Project (also won the Yonsei Social Entrepreneurship Award)**
- Developing and designing IoT product for Work-From-Home workers

Feb. 2022 • **First Place & Submission of High-Quality Award** 12th The Willem Vis Pre-Moot International Commercial Arbitration Competition of Seoul
- Participated in the regional rounds of one of the world's largest and most prestigious moot court competitions regarded as a major grand slam moot, held annually in Vienna since 1994 and drawing around 400 law schools. As an undergraduate researcher of Yonsei Law School, won first place as a team and also for memorandum submission. (news article featured in `https://lifenlearning.chosun.com/pan/site/data/html_dir/2022/03/03/2022030302016.html`, `https://www.lec.co.kr/news/articleView.html?idxno=734853`)

Nov. 2021 • **Gold Medal (First Place) for the East Asian Regional Rounds** 26th Stetson International Environmental Moot Court Competition
- Participated in the most prestigious international environment moot court competition in Asia as a researcher, and won first place

Professional Services

Reviewer:

- ARR 2026 May – (Present)
- NeurIPS 2025, 2026 Workshop on Math-AI
- NeurIPS 2024 Workshop on System-2 Reasoning at Scale

Teaching Assistant:

- **Natual Language Processing**, Georgia Institute of Technology — Aug. 2026 – (Present)
- **Large Language Model**, Yonsei Universtiy — Mar. 2026 – June. 2026
- **Yonsei-Design Factory Korea UN Office for Sustainable Development (DFK-UNOSD) Summer Camp**, Yonsei University — June. 2022

Skills

Programming Languages	• Python, R, JavaScript, Java
Deep Learning Frameworks and Tools	• PyTorch, Tensorflow, vLLM, Langchain, DeepSpeed, BitsAndBytes, Weights and Biases, OpenRLHF, veRL
Web Dev	• React.js, Firebase, MySQL, Node.js, Flask, Django, SpringBoot, HTML, CSS

Skills (continued)

Natural Languages	• English (**NewTEPS: 562 / 600 (2020, TOEFL 120 equivalent), TOEFL IBT: 117 (2025, 30 / 30 / 27 / 30 (My Best Scores 120)** , native proficiency), Korean (native), Mandarin Chinese (HSK Level 5 (2015) intermediate proficiency)