

Seiji Maekawa

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PROFESSIONAL PROFILE

I am a senior research scientist at Megagon Labs, specializing in natural language processing. My research focuses on improving the reliability and capabilities of large language models (LLMs) through function calling, retrieval-augmented generation (RAG), and long-context understanding. During my Ph.D., I developed and benchmarked graph neural networks and synthetic graph generation methods.

EXPERIENCES

Senior Research Scientist @ Megagon Labs, Inc., Mountain View, CA / Apr. 2024 – Present
Research on reliable and capable LLMs through function calling, retrieval augmentation, and long-context understanding.

Research Associate @ Megagon Labs, Inc., Mountain View, CA / Apr. 2023 – Mar. 2024
Developed methods for retrieval-augmented language models.

Research Internship @ Megagon Labs, Inc., Mountain View, CA / Jan. 2022 – Apr. 2022
Worked on low-budget active learning to reduce labeling costs.

Research Internship @ Hotto Link Inc., Remote / Sep. 2020 – Oct. 2020
Worked on follower prediction with limited API calls.

Specially Appointed Researcher @ Osaka University, Osaka, Japan / Apr. 2020 – Mar. 2023

Sales Engineer @ NTT DOCOMO, INC., Tokyo, Japan / Apr. 2019 – Mar. 2020.

Guest Student @ Eindhoven University of Technology, Eindhoven / Oct. 2018 – Dec. 2018
Supervisor: George Fletcher.

Visiting Student @ The Chinese University of Hong Kong, Hong Kong / Sep. 2017 – Oct. 2017
Supervisor: Jeffrey Xu Yu.

SELECTED PUBLICATIONS

“Align Then Adapt: Label-Efficient Adapter Learning for Asymmetric Dense Retrieval.”
[Seiji Maekawa](#), Moin Aminnaseri, Pouya Pezeshkpour, Estevam Hruschka. **EMNLP**, 2026.

“Towards Reliable Benchmarking: A Contamination Free, Controllable Evaluation Framework for Multi-step LLM Function Calling.”
[Seiji Maekawa](#), Jackson Hassell, Pouya Pezeshkpour, Tom Mitchell, Estevam Hruschka. **ICLR**, 2026.

“Same Content, Different Representations: A Controlled Study for Table QA.”
Yue Zhang, [Seiji Maekawa](#) (Main mentor of this internship project), Nikita Bhutani. **ICLR**, 2026.

“Efficient Context Selection for Long-Context QA: No Tuning, No Iteration, Just Adaptive-k.”
Chihiro Taguchi, [Seiji Maekawa](#) (Main mentor of this internship project), Nikita Bhutani. **EMNLP**, 2025 (Oral).

“Holistic Reasoning with Long-Context LMs: A Benchmark for Database Operations on Massive Textual Data.”
Seiji Maekawa*, Hayate Iso*, Nikita Bhutani. **ICLR**, 2025.

“From Single to Multi: How LLMs Hallucinate in Multi-Document Summarization.”
Catarina G. Belem, Pouya Pezeshkpour, Hayate Iso, Seiji Maekawa, Nikita Bhutani, Estevam Hruschka. **Findings of NAACL**, 2025.

“Retrieval Helps or Hurts? A Deeper Dive into the Efficacy of Retrieval Augmentation to Language Models.”
Seiji Maekawa, Hayate Iso, Sairam Gurajada, Nikita Bhutani. **NAACL**, 2024 (Oral).

“GenCAT: Generating Attributed Graphs with Controlled Relationships between Classes, Attributes, and Topology.”
Seiji Maekawa, Yuya Sasaki, George Fletcher, Makoto Onizuka. **Information Systems**, Feb. 2023.

“Low-resource Interactive Active Labeling for Fine-tuning Language Models.”
Seiji Maekawa, Dan Zhang, Hannah Kim, Sajjadur Rahman, Estevam Hruschka. **Findings of EMNLP**, 2022.

“Beyond Real-world Benchmark Datasets: An Empirical Study of Node Classification with GNNs.”
Seiji Maekawa, Koki Noda, Yuya Sasaki, Makoto Onizuka. **NeurIPS 2022 (Datasets & Benchmarks)**.

“GNN Transformation Framework for Improving Efficiency and Scalability.”
Seiji Maekawa, Yuya Sasaki, George Fletcher, Makoto Onizuka. **ECML/PKDD**, 2022.

EDUCATION

Degree: Ph.D. (Information Science and Technology) / Apr. 2020 – Mar. 2023

Osaka University Graduate School of Information Science and Technology, Osaka, Japan.
Research Topics: Graph Neural Networks, Synthetic Graph Generation.

Degree: M.S. (Information Science and Technology) / Apr. 2017 – Mar. 2019

Osaka University Graduate School of Information Science and Technology, Osaka, Japan.
Research Topics: Graph Clustering with Matrix Factorization, Synthetic Graph Generation.

Degree: B.E. (Informatics) / Apr. 2012 – Sep. 2016

Kyoto University Undergraduate School of Informatics and Mathematical Science, Kyoto, Japan.
Research Topics: Topic Model with Matrix Factorization, Natural Language Processing.

AWARDS & ACTIVITIES

Program Committee:

2026: ICLR, KDD D&B, COLM, ARR (May), VLDB DashSys Workshop; 2025: ICLR, ARR (May & July); 2024: ARR (April & October), ECML PKDD AI4HR & PES Workshop, EACL NLP4HR Workshop, SDM, TKDE; 2023: IEEE BigData, CIKM, ACL Matching Workshop, KDD; 2022: NeurIPS D&B, ECML PKDD.

Kasami Award (Outstanding Young Researcher Award of The University of Osaka), 2026.

Talk “Holistic Reasoning with Long-Context LMs” at NLP Colloquium, May 2025.

Tutorial “Introduction to Graph Neural Networks” at DEIM 2023.

Guest Speaker at Josho Radio, Feb. 2023.

Student Presentation Award at DEIM, 2019.

Student Award at I-Scorer Contest, 2017.