

Hiroaki Yamagiwa

Ph.D. student, Graduate School of Informatics, Kyoto University, Kyoto, Japan

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Profiles: [Portfolio](#) — [Google Scholar](#) — [GitHub](#) — [LinkedIn](#)

RESEARCH INTERESTS

Natural Language Processing, Optimal Transport, Computer Vision, Software Engineering

EDUCATION

Kyoto University, Kyoto, Japan
Ph.D. student in Informatics

Apr. 2022 — Present

Kyoto University, Kyoto, Japan
Master of Science in Informatics

Apr. 2020 — Mar. 2022

Kyoto University, Kyoto, Japan
Bachelor of Science in Mathematics

Apr. 2015 — Mar. 2020

EXPERIENCE

Rist Inc.
Research Intern

Kyoto, Japan
Aug. 2023 — Sep. 2023

- We proposed a new zero-shot edge detection method [2] that was accepted at the WACV 2024 workshop.

Kyoto University
Research Assistant

Kyoto, Japan
Apr. 2023 — Present

RIKEN
Part-time Researcher

Remote, Japan
Aug. 2021 — Mar. 2022

DATAGRID Inc.
Part-time Engineer

Kyoto, Japan
Dec. 2020 — Jul. 2021

- Natural Language Processing Engineer

Rist Inc.
Part-time Engineer

Kyoto, Japan
Sep. 2019 — Present

- Machine Learning Engineer

PREPRINTS

1. Hiroaki Yamagiwa, Momose Oyama, and Hidetoshi Shimodaira. 2024. [Revisiting Cosine Similarity via Normalized ICA-transformed Embeddings](#). arXiv.
2. Hiroaki Yamagiwa, Ryoma Hashimoto, Kiwamu Arakane, Ken Murakami, Shou Soeda, Momose Oyama, Mariko Okada, and Hidetoshi Shimodaira. 2024. [Predicting Drug-Gene Relations via Analogy Tasks with Word Embeddings](#). arXiv.
3. Hiroaki Yamagiwa, Yusuke Takase, and Hidetoshi Shimodaira. 2024. [Axis Tour: Word Tour Determines the Order of Axes in ICA-transformed Embeddings](#). arXiv.

PUBLICATIONS

(*) denotes equal contribution.

1. Yunzhen He*, Hiroaki Yamagiwa*, and Hidetoshi Shimodaira. 2024. [Shimo Lab at “Discharge Me!”: Discharge Summarization by Prompt-Driven Concatenation of Electronic Health Record Sections](#). In Proceedings of the 23rd Workshop on Biomedical Natural Language Processing and BioNLP Shared Tasks, pages ***–***. Association for Computational Linguistics.
2. Hiroaki Yamagiwa, Yusuke Takase, Hiroyuki Kambe, and Ryosuke Nakamoto. 2024. [Zero-Shot Edge Detection with SCESAME: Spectral Clustering-based Ensemble for Segment Anything Model Estimation](#). In Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) Workshops, pages 541–551. IEEE.

3. Hiroaki Yamagiwa*, Momose Oyama*, and Hidetoshi Shimodaira. 2023. [Discovering Universal Geometry in Embeddings with ICA](#). In Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing, pages 4647–4675. Association for Computational Linguistics.
4. Hiroaki Yamagiwa, Sho Yokoi, and Hidetoshi Shimodaira. 2023. [Improving word mover’s distance by leveraging self-attention matrix](#). In Findings of the Association for Computational Linguistics: EMNLP 2023, pages 11160—11183. Association for Computational Linguistics.

GRANTS

- [Kyoto University Science and Technology Innovation Fellowship](#) (Apr. 2022 — Mar. 2025).

SKILLS

- **Programming:** Python, C++, Linux, Docker
- **Language:** Japanese, English
- **Kaggle:** Competitions Expert

REFERENCES

Prof. Hidetoshi Shimodaira

Professor, Graduate School of Informatics, Kyoto University, Kyoto, Japan

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