

# Hiroaki Yamagiwa

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

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

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## RESEARCH INTERESTS

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

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## EDUCATION

**Kyoto University**, Kyoto, Japan Apr. 2022 — Present  
Ph.D. student in Informatics

**Kyoto University**, Kyoto, Japan Apr. 2020 — Mar. 2022  
Master of Science in Informatics

**Kyoto University**, Kyoto, Japan Apr. 2015 — Mar. 2020  
Bachelor of Science in Mathematics

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## EXPERIENCE

**Rist Inc.** Kyoto, Japan  
*Research Intern* Aug. 2023 — Sep. 2023

- We proposed a new zero-shot edge detection method [1] that was accepted at the WACV 2024 workshop.

**Kyoto University** Kyoto, Japan  
*Research Assistant* Apr. 2023 — Present

**RIKEN** Remote, Japan  
*Part-time Researcher* Aug. 2021 — Mar. 2022

**DATAGRID Inc.** Kyoto, Japan  
*Part-time Engineer* Dec. 2020 — Jul. 2021

- Natural Language Processing Engineer

**Rist Inc.** Kyoto, Japan  
*Part-time Engineer* Sep. 2019 — Present

- Machine Learning Engineer

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## PREPRINT

1. Hiroaki Yamagiwa, Yusuke Takase, and Hidetoshi Shimodaira. 2024. [Axis Tour: Word Tour Determines the Order of Axes in ICA-transformed Embeddings](#). arXiv.

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## PUBLICATIONS

(\*) denotes equal contribution.

1. 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.
2. 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.
3. 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.

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## GRANTS

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

## SKILLS

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

## REFERENCES

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### **Prof. Hidetoshi Shimodaira**

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

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