

# 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

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

## EDUCATION

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**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

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**Rist Inc.**  
*Research Intern*

Kyoto, Japan  
Aug. 2023 — Sep. 2023

- We proposed a new zero-shot edge detection method [1] 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

## PUBLICATIONS

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(\*) denotes equal contribution.

1. Hiroaki Yamagiwa, Yusuke Takase, Hiroyuki Kambe, Ryosuke Nakamoto. 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, pp.\*\*\*, 2024. [arXiv](#).
2. Hiroaki Yamagiwa\*, Momose Oyama\*, Hidetoshi Shimodaira. Discovering Universal Geometry in Embeddings with ICA. In Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP), pp.\*\*\*, 2023. [arXiv](#).
3. Hiroaki Yamagiwa, Sho Yokoi, Hidetoshi Shimodaira. Improving word mover's distance by leveraging self-attention matrix. In Findings of the Association for Computational Linguistics: EMNLP 2023, pp.\*\*\*, 2023. [arXiv](#).

## GRANTS

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

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