

Yushi Ogiwara

Doctoral course student at Keio University

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INTERESTS

- Database Transaction Systems
- GPU Acceleration
- Machine Learning
- Robotics

PEER REVIEWED PUBLICATIONS

- [Y. Ogiwara](#) and H. Kawashima, “Sparse Ternary Matrix Multiplication with Tensor Core for Transformer”, in CANDAR GCA, 2024.
- [Y. Ogiwara](#) and H. Kawashima, “Accelerating Transformer on GPUs with Sparse Ternary Weight Matrix”, in ACM Asia-Pacific Workshop on Systems (APSys), 2024 (poster).
- [Y. Ogiwara](#) and H. Kawashima, “Extending ROS Transform Library for Massive Autonomous Robots”, in IEEE International Conference on Embedded and Real-Time Computing Systems and Applications(RTCSA’23), 2023 (poster).
- [Yushi Ogiwara](#), Ayanori Yorozu, Akihisa Ohya, Hideyuki Kawashima: Transactional TF: transform library with concurrency and correctness, IEICE Transactions on Information and Systems announces, Special Section on Forefront Computing 2023.12
- [Y. Ogiwara](#), A. Yorozu, A. Ohya, and H. Kawashima, “Transactional Transform Library on ROS,” in 2022 IEEE/RSJ International Conference on Intelligent Robots and Systems (**IROS**, **H5-index=80**), 2022.
- [Y. Ogiwara](#), A. Yorozu, A. Ohya, and H. Kawashima, "Making ROS TF Transactional," in 2022 ACM/IEEE 13th International Conference on Cyber-Physical Systems (ICCPS), 2022, pp. 318-319

NON-PEER REVIEWED PUBLICATIONS

- [Y. Ogiwara](#) and H. Kawashima, “重み行列の三項値化におけるGPU上での高速化”, in xSIG2024 (In Japanese).
- [Y. Ogiwara](#) and H. Kawashima, “ROS TF for huge-scale device management”, in xSIG2023 (In Japanese).
- [Y. Ogiwara](#), A. Yorozu, A. Ohya, and H. Kawashima, “ROS TF のトランザクショナル設計とタイムライン破損,” in SIGOS2023 (In Japanese).

- Y. Ogiwara, A. Yorozu, A. Ohya, and H. Kawashima, “Making ROS TF high quality by concurrency control method,” in ETNET2022 (In Japanese).
- Y. Minami, T. Suzuki, T. Yamakura, I. Kamae, Y. Oikawa, Y. Ogiwara, H. Kawashima, H. Date, A. Yorozu, “Tsukuba Challenge 2021: Team Aqua, Intelligent Robotics Laboratory, University of Tsukuba”, in SI2021 (In Japanese).

STUDENT SCHOLARSHIP

- **Research Fellowship for Young Scientists (DC1) — Apr 2024-Mar 2027**
Japan Society for the Promotion of Science, 9.2M JPY
- **Young Leader Scholarship — Apr 2024**
The Tokyo Foundation for Policy Research, 1M JPY

TEACHING

- **Mathematical optimization — Apr 2024-Jul 2024**
Keio University

AWARDS

- **SFC Outstanding Graduation Project — 2022**
- **Information Processing Society of Japan SIGOS Outstanding Young Presentation — 2022**

MEDIA

“Accelerating the Power of Data System” — 2023
https://www.sfc.keio.ac.jp/gsmg/en/education/gstudent-research/ci_ogiwara.html

EXPERIENCES

Data Analysis & Application Development, Marubeni Corp. — 2025
Participated in medical image analysis (OpenCV, Python, AWS) and farm support application development (Swift, Flutter) projects.

Level-4 Autonomous Driving Investigation Internship, Mitsubishi Research Institute, Inc. — 2024
Participated in an investigation of technical details of domestic L4 autonomous driving projects.

Database Engineering Internship, NTT DATA Group Corp.— 2024
Participated in PostgreSQL development and bug improvement (C++).

Data Scientist Internship, Toyota Motor Corp. — 2023
Participated in a traffic data analysis internship (Python, AWS) at Toyota.

Tsukuba robot competition — 2021
Participated in the Tsukuba robot competition and worked on autonomous driving (C++, ROS).

Chief Technical Officer, Penmark.inc; Tokyo, Japan — 2018-2020

Created multi-platform mobile applications (Flutter, GCP)

Web frontend software engineer, Ubie.inc; Tokyo, Japan — 2018

Scouted as a web frontend software engineer and worked on medical analysis software (React, Ruby on Rails).

Web backend software engineer, Preapp Co., Ltd; Kanagawa, Japan — 2018

Hired as a web backend software engineer and worked on the e-commerce web application (Laravel).

EDUCATION

2024-Present **Graduate School of Media and Governance, Keio University**

Research Topic: Computer science

Research Supervisor: Dr. Hideyuki Kawashima

2022-2024 **Graduate School of Media and Governance, Keio University**

Research Topic: Computer science

Research Supervisor: Dr. Hideyuki Kawashima

GPA: 3.83

2018-2022 **Faculty of Environment and Information Studies, Keio University**

Research Topic: Computer science

Research Supervisor: Dr. Hideyuki Kawashima

GPA: 3.55

SKILLS

Language

Japanese Native

English IELTS Overall 6.5

Programming

Language C, C++, CUDA, PHP, Python, Ruby, Java, JavaScript, Kotlin, Swift, TypeScript, Dart.

Platforms and Frameworks

Vue, React, Angular, Laravel, Ruby on Rails, Android, iOS, React Native, Flutter, Firebase, GCP, AWS.

GitHub <https://github.com/Ogiwara-CostlierRain464>

SOCIAL MEDIA

Twitter **@yogiwara_study**