Yusuke Izawa, Assistant Professor, PyPy Contributor

✉ me@yizawa.com
🌐 https://www.yuiza.org
🏠 〒 191-0065. 6 Chome-6, Asahigaoka, Hino, Tokyo , Japan.

Education

|	
2020-2023	**Ph.D. Mathematical and Computing Science, Tokyo Institute of Technology**. Thesis title: *Supporting multi-scope and multi-level compilation in a meta-tracing just-in-time compiler.* (GPA 3.49)
2018-2020	**M.Sc. Mathematical and Computing Science, Tokyo Institute of Technology**. Thesis title: *Stack Hybridization: A Mechanism for Bridging Two Compilation Strategies in a Meta Compiler Framework.*
2014-2018	**B.Sc. Mathematical and Computing Science, Tokyo Institute of Technology**. Thesis title: *BacCaml: A Meta-JIT Compiler Based on Both Tracing and Method JIT Compilations.*

Employment History

2025.06 – 2025.09	Heinrich-Heine-Universität Düsseldorf, Guest Researcher.
2023.04 – now	Tokyo Metropolitan University, Assistant Professor.
2023.04 – 2024.03	IBM Research – Tokyo, Research Scientist.
2023.04 – 2023.04	JSPS Research Fellow PD. (declined)
2021.08 – 2021.10	IBM Research – Tokyo, Research Internship (Paid).
2021.04 – 2023.03	JSPS Research Fellow DC2.
2020.11 – 2023.03	Tokyo Institute of Technology, Dept. of Math. and Comp., Research Assistant.

Selected Grants, Honours and Scholarships

2025	**Tokyo Metropolitan University, Dispatching of Young Researchers to Overseas to Strengthen Research Capabilities**. Living expenses are covered by Tokyo Metropolitan University Fund.
2024	**Graint-in-Aid for Research Activity Start-up**. Research expenses are convered by KAKENHI.
2023	**Research Fellowship for Young Scientists (JSPS PD).** Fellowship from the Japan Society for the Promotion of Science (JSPS), covering living expenses. Research expenses covered by KAKENHI. (declined)
2021	**Research Fellowship for Young Scientists (JSPS DC2)**. Fellowship from the Japan Society for the Promotion of Science (JSPS), covering living expenses. Research expenses covered by KAKENHI.
2020	**JST Strategic Basic Research Programs ACT-X**. Research expenses covered by Japan Science and Technology Agency (JST).
2019	**2nd Place, Graduate Category, ACM Student Research Competition,** *Association for Computing Machinery.* [*]

Selected Publications

Journal

1. Yusuke Izawa, Hidehiko Masuhara, Carl Friedrich Bolz-Tereick, and Youyou Cong. "Threaded Code Generation with a Meta-Tracing JIT Compiler." In: *Journal of Object Technology* (2022), 2:1–11. ISSN: 1660-1769. DOI: 10.5381/jot.2022.21.2.a1. arXiv: 2106.12496.

2   Shusuke Takahashi, Yusuke Izawa, Hidehiko Masuhara, and Youyou Cong. "An approach to collect object graphs for data-structure live programming based on a language implementation framework." In: *Journal of Information Processing* 30 (2022), pp. 451–463. ⚲DOI: 10.2197/ipsjjip.30.451.

Conference Proceedings

1   Yusuke Izawa, Hidehiko Masuhara, and Carl Friedrich Bolz-Tereick. "A Lightweight Method for Generating Multi-Tier JIT Compilation Virtual Machine with a Meta-Tracing Compiler Framework." In: *39th European Conference on Object-Oriented Programming (ECOOP 2025)*. Leibniz International Proceedings in Informatics (LIPIcs). Bergen, Norway: Schloss Dagstuhl – Leibniz-Zentrum für Informatik, 2025, to appear.

2   Yusuke Izawa, Junichiro Kadomoto, and Hidetsugu Irie. "Designing a Reactive Programming Language for Shape-Adaptive Computers." In: 31st Asia-Pacific Software Engineering Conference (APSEC 2024 ERA). Chongquing, China: IEEE, 2024, to appear.

3   Yusuke Izawa and Hidehiko Masuhara. "Amalgamating Different JIT Compilations in a Meta-Tracing JIT Compiler Framework." In: *Proceedings of the 16th ACM SIGPLAN International Symposium on Dynamic Languages*. DLS 2020. Virtual, USA: Association for Computing Machinery, Nov. 17, 2020, pp. 1–15. ISBN: 9781450381758. ⚲DOI: 10.1145/3426422.3426977.

Selected Academic Services

2025	▮ Program Co-Chair, VMIL 2025.
	▮ Programming and Programming Language Workshop (PPL), Program Committee.
2024	▮ External Reviewer, The Programming Journal, Volume 8. Issue 2.
	▮ Reviewer, ACM Transactions on Architecture and Code Optimization.
	▮ Reviewer, ACM Transactions on Software Engineering and Methodology.
	▮ Program Committee, MPLR 2024, ICCQ 2024, MoreVMs 2024.
2023	▮ Program Committee, ICSME 2023 (Industry Track), ICCQ 2023.
	▮ Artifact Evaluation Committee, The Programming Journal, Volume 8.

Teaching

2024	▮ Research Seminar for Electric Engineering and Computer Science. Tokyo Metropolitan University.
	▮ Scripting Language Exercise. Tokyo Metropolitan University.
	▮ Information System Experiment I, II. Tokyo Metropolitan University.
	▮ Programming Exercise (EECS) II. Tokyo Metropolitan University.