Yusuke Izawa, Ph.D. student

yizawa@acm.org @yusuke_izawa
https://3tty0n.github.io

Education

2020-now **Ph.D., Tokyo Institute of Technology**.

2018-2020 **M.Sc. Mathematical and Computing, 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, Tokyo Institute of Technology**.
Thesis title: *BacCaml: A Meta-JIT Compiler Based on Both Tracing and Method JIT Compilations*

Grants, Honours and Scholarships

2021 **Research Fellowship for Young Scientists (JSPS DC2)**. Fellowship from the Japan Society for the Promotion of Science (JSPS), covering living expenses. Research expensec covered by KAKENHI.

2020 **JST Strategic Basic Research Programs ACT-X**. Research expenses covered by Japan Science and Technology Agency (JST).

Tokyo Tech Tsubame Scholarship for Doctoral Students. Covering living expenses.

2019 **Travel Grants by Information Science Incentive Fund**. By dept. of mathematical and computing science, Tokyo Tech.

2nd Place, Graduate Category, ACM Student Research Competition, *Association for Computing Machinery*. [*]

2014 **Scholarship by the Showa Scholarship Foundation**. Covering living expensed by Showa Scholarship Foundation.

Publications

Peer-reviewed

1. Izawa, Y., & Masuhara, H. (2020a). Amalgamating different jit compilations in a meta-tracing jit compiler framework. In *Proceedings of the 16th acm sigplan international symposium on dynamic languages* (pp. 1–15). doi:10.1145/3426422.3426977
2. Izawa, Y. (2019). Baccaml: The meta-hybrid just-in-time compiler. In *Proceedings of the conference companion of the 3rd international conference on art, science, and engineering of programming*. **Awarded [*]**. doi:10.1145/3328433.3328466
3. Izawa, Y., Masuhara, H., & Aotani, T. (2019). Extending a meta-tracing compiler to mix method and tracing compilation. In *Proceedings of the conference companion of the 3rd international conference on art, science, and engineering of programming*. doi:10.1145/3328433.3328439

Non Peer-reviewed

1. Izawa, Y., Masuhara, H., Aotani, T., & Cong, Y. (2019). *A stack hybridization for meta-hybrid just-in-time compilation*. nonrefereed, Shibaura Institute of Technology, Tokyo, Japan.

Talks

Oral and Poster Sessions

1. Izawa, Y., & Masuhara, H. (2021). Amalgamating different JIT compilations in a meta-tracing JIT compiler framework. The 23nd JSSST Workshop on Programming and Programming Languages. Reproduction of the DLS'20 talk at JSSST PPL, **Invited**. Retrieved from https://jssst-ppl.org/workshop/2021/
2. Izawa, Y., Masuhara, H., & Cong, Y. (2021). An interpreter design for supporting different JIT compilations in rpython framework. The 23nd JSSST Workshop on Programming and Programming Languages. Poster Presentation. Retrieved from https://easychair.org/smart-program/PPL2021/
3. Takahashi, S., Izawa, Y., Masuhara, H., & Cong, Y. (2021). 汎言語的ライブプログラミング環境のためのデータ構造解析手法. The 23nd JSSST Workshop on Programming and Programming Languages. Poster Presentation. Retrieved from https://easychair.org/smart-program/PPL2021/
4. Izawa, Y., & Masuhara, H. (2020b). Making different jit compilations dancing to the same tune, acting in the meta-level. The 22nd JSSST Workshop on Programming and Programming Languages. Poster Presentation. Retrieved from https://easychair.org/smart-program/PPL2020/
5. Masuhara, H., Takahashi, S., Izawa, Y., & Cong, Y. (2020). Toward a multi-language and multi-environment framework for live programming. Talk at the 2020 Workshop on Live Programming (colocated with SPLASH 2020). **Peer-reviewed**. Retrieved from https://2020.splashcon.org/home/live-2020
6. Takahashi, S., Izawa, Y., Masuhara, H., & Cong, Y. (2020). ライブプログラミング環境は多言語化/多開発環境化の夢を見るか. The 37th JSSST Anual Conference. Japan Society for Software Science and Technology. Poster Presentation. Retrieved from https://jssst2020.wordpress.com/program/
7. Izawa, Y., Masuhara, H., & Aotani, T. (2018). メタ混合 JIT コンパイラの提案. The 20nd JSSST Workshop on Programming and Programming Languages. Poster Presentation. Retrieved from https://jssst-ppl.org/workshop/2018/program.html

Academic Services

2021	Artifact Evaluation Committee, ECOOP 2021.
2020	Member of Student Volunteer, SPLASH 2020.
	Co-reviewer of Onward! Essays, SPLASH 2020.
	Candidate of Programming Language Mentoring Workshop, PLDI 2020.
2019	Member of Student Volunteer, Programming 2019.

Teaching

2020	Programming II, Tokyo Institute of Technology, Math. and Comp. Science, TA.
2019	Programming II, Tokyo Institute of Technology, Math. and Comp. Science, TA.
	Introduction to Computer Science, Tokyo Institute of Technology, TA.
2018	Programming II, Tokyo Institute of Technology, Math. and Comp. Science, TA.
	Information Literacy I, Tokyo Institute of Technology, TA.

Employment History

2020.11-2023.3	Tokyo Institute of Technology, Dept. of Math. and Comp., Research Assistant.
2018.6 – 2019.2	Recruit Marketing Partners, Inc., Software Engineer, Self-employment.

Employment History (continued)

2018.8	Cookpad, Inc., Software Engineer, Internship. (**Won 2nd Place**)
2017.4 – 2018.3	FOLIO, Inc., Software Engineer, Internship.
2016.8 – 2017.3	DOWANGO, Inc., Software Engineer, Internship.
2016.1 – 2016.6	Summaly, Inc., Software Engineer, Internship

Skills

Languages	English (fluent), Japanese (native)
Coding	OCaml (S), Scala (S), Python (S), C (A), Java (A), Ruby (A), Shell (A), R (B), SQL (C), LaTeX(SS)
Misc.	Academic research, teaching, training, consultation, LaTeX typesetting and publishing.