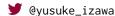
# Yusuke Izawa, Ph.D. student

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### **Education**

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

M.Sc. Mathematical and Computing, Tokyo Institute of Technology. 2018-2020 Thesis title: Stack Hybridization: A Mechanism for Bridging Two Compilation Strategies in a

Meta Compiler Framework

B.Sc. Mathematical and Computing, Tokyo Institute of Technology. 2014-2018

> Thesis title: BacCaml: A Meta-JIT Compiler Based on Both Tracing and Method JIT Compilations

### **Employment History**

Tokyo Institute of Technology, Dept. of Math. and Comp., Research Assistant. 2020.11-2023.3

2018.6 - 2019.2 Recruit Marketing Partners, Inc., Software Engineer, Self-employment.

Cookpad, Inc., Software Engineer, Internship. (Won 2nd Place) 2018.8

2017.4 - 2018.3 FOLIO, Inc., Software Engineer, Internship.

DOWANGO, Inc., Software Engineer, Internship. 2016.8 - 2017.3

2016.1 - 2016.6 Summaly, Inc., Software Engineer, Internship

# Grants, Honours and Scholarships

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

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

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

Travel Grants by Information Science Incentive Fund. By dept. of mathematical and com-2019 puting science, Tokyo Tech.

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

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

#### **Publications**

#### Peer-reviewed

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). O doi:10.1145/3426422.3426977

- 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
- 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.* 60 doi:10.1145/3328433.3328439

#### Non Peer-reviewed

Izawa, Y., Masuhara, H., Aotani, T., & Cong, Y. (2019). A stack hybridization for meta-hybrid just-in-time compilation. In K. Ito (Ed.), *Proceedings of the 36th jssst annual conference* (No. 2–L). nonrefereed. Shibaura Institute of Technology, Tokyo, Japan. Retrieved from <a href="http://jssst.or.jp/files/user/taikai/2019/proceedings.html">http://jssst.or.jp/files/user/taikai/2019/proceedings.html</a>

#### **Talks**

#### **Oral and Poster Sessions**

- 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 <a href="https://jssst-ppl.org/workshop/2021/">https://jssst-ppl.org/workshop/2021/</a>
- 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 6 https://easychair.org/smart-program/PPL2021/
- 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 ❷ https://easychair.org/smart-program/PPL2021/
- 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 6 https://easychair.org/smart-program/PPL2020/
- 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 <a href="https://2020.splashcon.org/home/live-2020">https://2020.splashcon.org/home/live-2020</a>
- 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/
- Tzawa, 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.

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.

# Skills

2019

Languages English (fluent), Japanese (native)

Coding OCaml (S), Scala (S), Python (S), C (A), Java (A), Ruby (A), Shell (A), R (B), SQL (C), Land (S)

Misc. Academic research, teaching, training, consultation, LTFX typesetting and publishing.