



# Yudai Tanabe

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## PERSONAL STATEMENT

I'm a postdoctoral researcher of Computer Software Group, Department of Communications and Computer Engineering, Graduate School of Informatics, Kyoto University. I received Doctor of Science at Tokyo Institute of Technology under the supervision of Prof. Hidehiko Masuhara. I am also a member of Association for Computing Machinery.

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## RESEARCH INTEREST

My interest is on **types and programming languages**. I'm currently working on developing a new language mechanism for type-based compatibility/dependency analysis. I've also interested in the following topics:

- Advanced type systems, including effect/coeffect calculi and gradual type systems
- Meta-programming

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## EDUCATION

<b>Doctor of Science</b> <i>Tokyo Institute of Technology</i>	Apr. 2020 – Mar. 2023 <i>Tokyo, Japan</i>
<b>Master of Science</b> <i>Tokyo Institute of Technology</i>	Apr. 2019 – Mar. 2020 <i>Tokyo, Japan</i>
<b>Bachelor of Science</b> <i>Tokyo Institute of Technology</i>	Apr. 2014 – Mar. 2018 <i>Tokyo, Japan</i>

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## GRANTS AND FELLOWSHIPS

<b>JSPS Research Fellowship for Young Scientists (DC2)</b> <i>Japan Society for the Promotion of Science (JSPS)</i>	Apr. 2022 – Mar. 2023
<b>Tokyo Tech Tsubame Scholarship</b> <i>Tokyo Institute of Technology</i>	Apr. 2020 – Mar. 2022

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## JOB EXPERIENCE

<b>Postdoctoral Researcher</b> <i>Computer Software Group, Kyoto University</i> <ul style="list-style-type: none"><li>• Research on Gradual Typing</li></ul>	Apr. 2023 – Mar. 2025 <i>Kyoto, Japan</i>
<b>JSPS Research Fellow (DC2)</b> <i>Japan Society for the Promotion of Science (JSPS)</i>	Apr. 2022 – Mar. 2023 <i>Tokyo, Japan</i>
<b>IBM Research Tokyo Student Intern (Paid Intern)</b> <i>IBM Research Tokyo</i> <ul style="list-style-type: none"><li>• Research and Development on a Java Compiler</li></ul>	Nov. 2021 – Dec. 2021 <i>Online</i>
<b>Research Assistant</b> <i>Tokyo Institute of Technology</i> <ul style="list-style-type: none"><li>• Research and Development on Live Programming Environment</li></ul>	May. 2021 – Present <i>Tokyo, Japan</i>
<b>IBM Research Tokyo Student Intern (Paid Intern)</b> <i>IBM Research Tokyo</i> <ul style="list-style-type: none"><li>• Research and Development on a Java Compiler</li></ul>	Jul. 2018 – Aug. 2018 <i>Tokyo, Japan</i>

**Editorial & Technical Assistant***MYU Research*

Mar. 2014 – Present

*Tokyo, Japan*

- Editorial & Technical Support for Scientific Journal (Sensing Technology, Applied Physics)

**TEACHING EXPERIENCE****Programming I (Teaching Assistant)***Tokyo Institute of Technology*

2019 – 2020

*Tokyo, Japan***Introduction to Computer Science (Teaching Assistant)***Tokyo Institute of Technology*

2018 – 2020

*Tokyo, Japan***Introduction to Information Literacy (Teaching Assistant)***Tokyo Institute of Technology*

2018 – 2020

*Tokyo, Japan***TECHNICAL SKILLS****Languages:** Haskell, OCaml, Java, Scala, SQL, JavaScript, HTML/CSS**PUBLICATIONS (PEER-REVIEWED)****Compilation Semantics for a Programming Language with Versions**

2023

*Yudai Tanabe, Luthfan Anshar Lubis, Tomoyuki Aotani, and Hidehiko Masuhara*

- In Programming Languages and Systems. APLAS 2023. Lecture Notes in Computer Science, vol 14405.

**A Step toward Programming with Versions in Real-World Functional Languages**

2022

*Yudai Tanabe, Luthfan Anshar Lubis, Tomoyuki Aotani, and Hidehiko Masuhara*

- In Proceedings of the 14th International Workshop on Context-Oriented Programming: Advanced Modularity for Run-time Composition (COP '22).

**BatakJava: an Object-Oriented Programming Language with Versions**

2022

*Luthfan Anshar Lubis, Yudai Tanabe, Tomoyuki Aotani, and Hidehiko Masuhara*

- In Proceedings of the 15th International Conference on Software Language Engineering (SLE '22).

**A Functional Programming Language with Versions**

2022

*Yudai Tanabe, Luthfan Anshar Lubis, Tomoyuki Aotani, and Hidehiko Masuhara*

- In the Journal of *The Art, Science, and Engineering of Programming*, Vol. 6, No. 1, 2022.

**A Context-Oriented Programming Approach to Dependency Hell**

2018

*Yudai Tanabe, Tomoyuki Aotani, and Hidehiko Masuhara*

- In Proceedings of the 10th International Workshop on Context-Oriented Programming: Advanced Modularity for Run-time Composition (COP '18). ACM, New York, NY, USA, 8-14.

**INVITED TALKS****A Language to Safely Exploit Multi-Version Modules at the Expression-level**

Jul. 2021

*Yudai Tanabe**Online*

- In the 13th Workshop on Context-Oriented Programming: Advanced Modularity for Run-time Composition (COP 2021).

**ACADEMIC SERVICE****APLAS 2024 SRC & Posters**

2024

*Organizer, Selection Committee, and Judge**Kyoto, Japan***PLDI 2024 Research Artifacts**

2024

*Artifact Evaluation Committee**Copenhagen, Denmark***ICCQ 2024**

2024

*Program Committee**Russia***APSEC 2023 SRC**

2023

*Program Committee**Seoul, Korea*

<b>APLAS 2023 SRC &amp; Posters</b> <i>Judge</i>	2023 <i>Taipei, Taiwan</i>
<b>ICSME 2023 Industry Track</b> <i>Program Committee</i>	2023 <i>Bogotá, Colombia</i>
<b>COP 2023</b> <i>Organizing Committee and Program Committee Chair</i>	2023 <i>Seattle, USA</i>
<b>ICCQ 2023</b> <i>Program Committee</i>	2023 <i>St. Petersburg, Russia</i>
<b>COP 2022</b> <i>Organizing Committee and Program Committee Chair</i>	2022 <i>Online</i>
<b>PeerJ Computer Science</b> <i>Reviewer</i>	2022 <i>Online</i>
<b>PEPM History Project</b> <i>Organizing Committee</i>	2022 <i>Online</i>
<b>Scheme 2021</b> <i>Reviewer</i>	2021 <i>Online</i>
<b>PPL 2021</b> <i>Panelist (Social Event)</i>	2021 <i>Online</i>
<b>Onward! Essays 2020</b> <i>Co-reviewer</i>	2020 <i>Online</i>
<b>SPLASH/ECOOP 2020</b> <i>Student Volunteer</i>	2020 <i>Online</i>