



Yudai Tanabe

Email: yudaitnb@prg.is.titech.ac.jp
Website: <https://yudaitnb.github.io/>

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.

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

EDUCATION

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

GRANTS AND FELLOWSHIPS

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

JOB EXPERIENCE

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

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 ACM SIGPLAN 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).

PRESENTATIONS

A Functional Programming Language with Versions

Mar. 2022

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

- In the 24th Workshop on Programming and Programming Language (PPL 2022)

A Reformalization of Quantified Types Based on Coeffect Calculus

Jun. 2019

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

- In the 124th Programming Research Symposium, Special Interest Group on Programming, Information Processing Society of Japan

A Context-Oriented Programming Approach to Dependency Hell

Sep. 2018

*Yudai Tanabe, Tomoyuki Aotani, and Hidehiko Masuhara**Fukuoka, Japan*

- In the Kumiki 6.0 Research Meeting

TALKS

- Type-based Compatibility Analysis by Using Graded Modality** Sep. 2020
Yudai Tanabe, Luthfan Anshar Lubis, Tomoyuki Aotani, and Hidehiko Masuhara Online
• In the 37th Conference of the Japan Society for Software Science and Technology (JSSST 2020)
- BatakJava: A Java Extension with Versions** Sep. 2020
Luthfan Anshar Lubis, Yudai Tanabe, Tomoyuki Aotani, and Hidehiko Masuhara Online
• In the 37th Conference of the Japan Society for Software Science and Technology (JSSST 2020)
- Version Polymorphism Based on Coeffect Systems** Mar. 2020
Yudai Tanabe, Luthfan Anshar Lubis, Tomoyuki Aotani, and Hidehiko Masuhara Saga, Japan
• In the 22nd Workshop on Programming and Programming Language (PPL 2020)
- Object-oriented Programming with Versions** Mar. 2020
Luthfan Anshar Lubis, Yudai Tanabe, Tomoyuki Aotani, and Hidehiko Masuhara Saga, Japan
• In the 22nd Workshop on Programming and Programming Language (PPL 2020)
- Module Systems with Versions** Mar. 2019
Yudai Tanabe, Tomoyuki Aotani, and Hidehiko Masuhara Iwate, Japan
• In the 21st Workshop on Programming and Programming Language (PPL 2019)
- An Introduction of Versions into Programming Languages** Mar. 2018
Yudai Tanabe, Tomoyuki Aotani, and Hidehiko Masuhara Tottori, Japan
• In the 20th Workshop on Programming and Programming Language (PPL 2018)

ACADEMIC SERVICE

- COP 2023** Jul. 2022
Organizing Committee Seattle, USA
- COP 2022** Jun. 2022
Organizing Committee and Program Committee Online
- PeerJ Computer Science** Jan. 2022
Reviewer Online
- PEPM History Project** Jan. 2022
Organizing Committee Online
- Scheme 2021** Aug. 2021
Reviewer Online
- PPL 2021** Mar. 2021
Panelist (Social Event) Online
- Onward! Essays 2020** Nov. 2020
Co-reviewer Online
- SPLASH/ECOOP 2020** Nov. 2020
Student Volunteer Online