

ASUMU TAKIKAWA

asumu@asumu.xyz
<http://asumu.xyz>

Education

PhD in Computer Science (Programming Languages)
Northeastern University, 2016
Advisor: Matthias Felleisen

BSc in Combined Computer Science & Math
University of British Columbia, 2010

Employment

Software Engineer	Igalia SL	2016-Current
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- ▶ Contributing to WebAssembly implementations in web browsers.
- ▶ Implemented high-speed user-space networking using Snabb & LuaJIT.

Research Assistant	Northeastern University	2010-2016
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- ▶ Designed & implemented a gradual type system to allow users to add optional type annotations for OO code in Typed Racket. In production use at a startup.
- ▶ Led a team designing a novel performance evaluation method for gradual typing. Evaluation method led to performance gains, one user reported 20% speedup.
- ▶ Supervised two MS students in adding features to Typed Racket. The two topics are support for first-class modules and for contracts/higher-order assertions.

Free/Open Source Software Development

- ▶ Have maintained 10+ libraries, 2 tools, and have contributed to many projects.
- ▶ Core developer for the Racket language & maintains a Racket PPA for Ubuntu.

Github: <http://github.com/takikawa>

Community Service and Leadership

- ▶ Organized RacketCon 2013. Managed audio/visual for RacketCon in 2014, 2015.
- ▶ Local organizer for IFL 2014 conference in Boston.
- ▶ Program committee member for the FOOL 2014 workshop.
- ▶ Artifact evaluation committee member for the OOPSLA 2015 conference.

Languages, Technologies, and Tools

- ▶ Racket, Scheme, Java, C, Haskell
- ▶ Git, Subversion, Vim, Emacs, Linux, Docker, Packer

Awards and Recognition

- ▶ Best Student Paper Award – “Gradual Typing for First-Class Classes” (2012)
- ▶ Distinguished Paper Award – “Towards Practical Gradual Typing” (2015)

Talks and Publications

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| “Gradual Typing for First-Class Classes” | OOPSLA 2012 |
| With S. Strickland, C. Dimoulas, S. Tobin-Hochstadt, and M. Felleisen. | |
| “Generics” | RacketCon 2012 |
| Talk at developer/user conference. | |
| “Constraining Delimited Control with Contracts” | ESOP 2013 |
| With S. Strickland and S. Tobin-Hochstadt. | |
| “Contracts for First-Class Classes: Theory and Practice” | TOPLAS 2013 |
| With S. Strickland, C. Dimoulas, and M. Felleisen. | |
| “Contracts for Practical Gradual Typing in an OO World” | Shonan 2014 |
| Invited talk at the Shonan Workshop on Contracts. | |
| “Towards Practical Gradual Typing” | ECOOP 2015 |
| With D. Feltey, E. Dean, M. Flatt, R. Findler, S. Tobin-Hochstadt, and M. Felleisen. | |
| “Is Sound Gradual Typing Dead?” | POPL 2016 |
| With D. Feltey, B. Greenman, M. New, J. Vitek, and M. Felleisen. | |