

# Asumu Takikawa

`asumu@asumu.xyz`  
`http://asumu.xyz`

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## Education

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### PhD in Computer Science (Programming Languages)

Northeastern University, 2016

Advisor: Matthias Felleisen

### BSc in Combined Computer Science & Math

University of British Columbia, 2010

## Employment

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| Software Engineer | Igalia SL | 2016-Current |
|-------------------|-----------|--------------|

- ▶ Contributing to WebAssembly implementations in web browsers.
- ▶ Implemented high-speed user-space networking using Snabb & LuaJIT.

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| 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 top features are support for first-class modules and for contracts/higher-order assertions.

## Free/Open Source Software Development

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- ▶ 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

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- ▶ 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

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

## Awards and Recognition

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- ▶ 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.