ASUMU TAKIKAWA

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http://asumu.org

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

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

Research Assistant	Northeastern University	2010-2016

- ▶ 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

"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.