Andre Kuhlenschmidt

CONTACT Information RESEARCH INTERESTS My research involves developing techniques that improve both the process of producing software and the quality of the software produced. My most recent work focuses on gradual typing based techniques that enable developers to more efficiently develop robust software by giving them the flexibility to benefit from both static and dynamic typing.

SKILLS

Skills Research in programming language theory and implementation.

Languages Racket/Scheme, C, Haskell, Java, Python, Coq, Agda, C++

Platforms Linux and Embedded ARM

EDUCATION

Indiana University, Bloomington, Indiana USA

Ph.D. Candidate, Computer Science, Ongoing

Advisor: Jeremy Siek

M.S., Computer Science, May 2016

Kelley School of Business, Indiana University, Bloomington, Indiana USA

B.S., Business, May 2010

ACADEMIC EXPERIENCE Indiana University, Bloomington, Indiana USA

Graduate Research Assistant to Jeremy Siek

January 2014 – Present

Evaluating implementation techniques for programming languages that soundly mix static and dynamic typing (gradual typing) in the context of ahead-of-time compilation, and developing formal semantics for gradual programming languages and their implementation.

Teaching Assistant

January 2016 – Present

Assisted in the instruction of courses teaching programming implementation, embedded programming, and operating systems. Responsibilities include teaching lab sections of 5-30 students, creating assignments, and developing course software.

Conference Papers **Efficient Gradual Typing**. Andre Kuhlenschmidt, Deyaaeldeen Almahallawi, Jeremy G. Siek. Conference on Programming Language Design and Implementation. (In Submission)

WORKSHOP PAPERS A Systematic Performance Evaluation of Gradually Typed Functions and References. Andre Kuhlenschmidt, Deyaaeldeen Almahallawi, Jeremy G. Siek. In Scripts to Programs Workshop, STOP, 2016.

Towards Absolutely Efficient Gradual Typing Andre Kuhlenschmidt, Deyaaeldeen Almahallawi, and Jeremy G. Siek. In Scripts to Programs Workshop, STOP, 2015.

OPEN SOURCE PROJECTS Grift 2014 – present

An ahead-of-time compiler for comparing implementations of gradual typing. github.com/Gradual-Typing/Grift/.