

Andre Kuhlenschmidt

CONTACT INFORMATION	Luddy Hall Indiana University 700 N. Woodlawn Ave. Bloomington, IN 47408	<i>E-mail:</i> akuhLens@iu.edu <i>Phone:</i> (812) 325-7906 <i>Github:</i> github.com/akuhLens <i>WWW:</i> akuhLens.github.io
RESEARCH INTERESTS	I am interested in designing and building compilers, runtime systems, and type systems that make it easier to produce quality software. My most recent work focuses on the implementation of gradual type systems that provide the benefits of both static and dynamic typing, while minimizing the performance overhead that has been associated with gradual types.	
EDUCATION	Indiana University , Bloomington, Indiana USA <i>Ph.D. Candidate</i> , Computer Science, May 2020 Advisor: Jeremy Siek <i>M.S.</i> , Computer Science, May 2016 <i>B.S.</i> , Business, Major: Entrepreneurship, May 2010	
EXPERIENCE	Indiana University , Bloomington, Indiana USA <i>Graduate Research Assistant</i> January 2014 – Present <ul style="list-style-type: none">• Evaluate implementation techniques for sound gradually typed programming languages.• Develop an ahead-of-time compiler Grift.• Measure performance improvements in compiler via benchmark experiments.• Design semantics that facilitate safety and efficiency. Indiana University , Bloomington, Indiana USA <i>Assistant Instructor</i> January 2016 – May 2018 August 2012 – May 2014 <ul style="list-style-type: none">• Planned and constructed course materials and software for courses in programming language semantics and implementation, operating systems, and embedded systems.• Instructed lab sessions of 5-30 students.• Recognized as Assistant Instructor of the Year in 2018.	
SKILLS	Languages: Racket, C, Haskell, Java, Python, Coq, C++ Tools and Platforms: Bash, Git, Make, Linux, Mac OS, Chibi OS, ARM	
REFEREED ARTICLES	An Efficient Compiler for the Gradually Typed Lambda Calculus Andre Kuhlenschmidt, Deyaaeldeen Almahallawi, Jeremy G. Siek. In Scheme and Functional Programming Workshop, 2018. 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 May 2014 – Present <ul style="list-style-type: none">• Collaborator on an optimizing compiler for a gradually typed Lisp to native code.• Utilizes <i>space-efficient coercions</i> to enforce soundness of the static type system, which results in a performance increase that is multiple orders of magnitude.	
PROFESSIONAL ACTIVITIES	IU SICE Graduate Education Committee, Student Representative OOPSLA Artifact Evaluation Committee SPLASH Student Research Competition Program Committee	January 2018 - Present August 2018 August 2018