

## 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 type systems that provide the benefits from both static and dynamic typing (i.e. gradual typing) while minimizing overhead.	
EDUCATION	<b>Indiana University</b> , 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	<b>Indiana University</b> , Bloomington, Indiana USA <i>Graduate Research Assistant</i> January 2014 – Present <ul style="list-style-type: none"><li>• Evaluate implementation techniques for sound gradually typed programming languages.</li><li>• Develop an ahead of time compiler Grift.</li><li>• Measure performance improvements in compiler via benchmark experiments.</li><li>• Design semantics that facilitate safety and efficiency.</li></ul> <b>Indiana University</b> , Bloomington, Indiana USA <i>Assistant Instructor</i> January 2016 – May 2018 August 2012 – May 2014 <ul style="list-style-type: none"><li>• Planned and constructed course materials and software for courses in programming language semantics and implementation, operating systems, and embedded systems.</li><li>• Instructed lab sessions of 5-30 students.</li><li>• Recognized as Assistant Instructor of the Year in 2018.</li></ul>	
SKILLS	<b>Languages:</b> Racket, C, Haskell, Java, Python, Coq, C++ <b>Tools and Platforms:</b> Bash, Git, Make, Linux, Mac OS, Chibi OS, ARM	
REFEREED ARTICLES	<b>An Efficient Compiler for the Gradually Typed Lambda Calculus</b> Andre Kuhlenschmidt, Deyaaeldeen Almahallawi, Jeremy G. Siek. In Scheme and Functional Programming Workshop, 2018.  <b>A Systematic Performance Evaluation of Gradually Typed Functions and References.</b> Andre Kuhlenschmidt, Deyaaeldeen Almahallawi, Jeremy G. Siek. In Scripts to Programs Workshop, STOP, 2016.  <b>Towards Absolutely Efficient Gradual Typing</b> Andre Kuhlenschmidt, Deyaaeldeen Almahallawi, and Jeremy G. Siek. In Scripts to Programs Workshop, STOP, 2015.	
OPEN SOURCE PROJECTS	<b>Grift</b> May 2014 – Present <ul style="list-style-type: none"><li>• Lead developer of an optimizing compiler for a gradually typed Lisp to native code.</li><li>• Utilizes <i>space-efficient coercions</i> to enforce soundness of the static type system.</li></ul>	
PROFESSIONAL ACTIVITIES	IU SICE Graduate Education Committee, Student Representative January 2018 - Present OOPSLA Artifact Evaluation Committee August 2018 SPLASH Student Research Competition Program Committee August 2018	