

Andrew M. Kent

CONTACT INFORMATION	Lindley Hall 215 Indiana University 150 S. Woodlawn Ave. Bloomington, IN 47405	<i>E-mail:</i> andmkent@iu.edu <i>Fax:</i> (812) 855-4829 <i>Github:</i> github.com/pnwamk <i>WWW:</i> pnwamk.github.io
RESEARCH INTERESTS	I am interested in developing programming language based techniques that help developers design and build robust software in real world settings. In particular, I am interested in making advanced type-theoretic verification and design techniques more accessible to developers of all levels.	
SKILLS	Research in programming language theory and formal logic, functional and imperative programming, experience with the Unix environment and a variety of programming languages/tools (Racket, Coq, C/C++, Agda, Java, Python, git, etc).	
EDUCATION	Indiana University , Bloomington, Indiana USA Ph.D. Candidate, Computer Science, Ongoing Advisor: Sam Tobin-Hochstadt M.S., Computer Science, May 2017 Brigham Young University , Provo, Utah USA B.S., Computer Science, graduated <i>magna cum laude</i> , August 2013	
PUBLICATIONS	S. Tobin-Hochstadt, M. Felleisen, R.B. Findler, M. Flatt, B. Greenman, A.M. Kent, V. St-Amour, T.S. Strickland, A. Takikawa. <i>Migratory Typing: Ten Years Later</i> . <i>Proc. 2nd Summit on Advances in Programming Languages</i> (SNAPL 2017). A.M. Kent, D. Kempe, S. Tobin-Hochstadt. <i>Occurrence Typing Modulo Theories</i> . <i>Proc. 37th ACM Conference on Programming Language Design and Implementation</i> (PLDI 2016). Included successfully evaluated artifact. M.M. Vitousek, A.M. Kent, J.G. Siek, J. Baker. <i>Design and Evaluation of Gradual Typing for Python</i> . <i>Proc. 10th ACM Symposium on Dynamic Languages</i> (DLS 2014). D.J. Kennard, A.M. Kent, W.A. Barret. <i>Linking the Past: Discovering Historical Social Networks from Documents and Linking to a Genealogical Database</i> . <i>Proc. 1st Workshop on Historical Document Imaging and Processing</i> (HIP 2011).	
ACADEMIC EXPERIENCE	Indiana University , Bloomington, Indiana USA <i>Graduate Research Assistant</i> May 2014 – Present Investigating type-based program verification, evaluating gradual typing applications in mainstream languages, and developing techniques to bring dependent types to dynamically typed languages. Advised by Sam Tobin-Hochstadt. <i>Assistant Instructor</i> January 2016 – Present <i>CSCI-B 522 and CSCI-B 401</i> Assisted with instruction and grading for a graduate level programming language theory course and an undergraduate level course on the theory of computation.	

Brigham Young University, Provo, Utah USA

Graduate Research Assistant

August 2013 – April 2014

Investigated the formalization of security protocol analysis techniques (Strand Spaces) utilizing the Coq proof assistant to create a verified basis for accessible, automated protocol analysis techniques. Advised by Jay McCarthy.

Undergraduate Research Assistant

May – September 2011

Developed method for automatically generating historical social networks from source documents to aid historical research. Advised by William Berret and Tom Sederberg.

TALKS

Practical Dependently Typed Racket, RacketCon 2015, St. Louis, MO, USA.

Adding Practical Dependent Types to Typed Racket, Scripts to Programs Workshop 2015, Prague, Czech Republic.

PROFESSIONAL
EXPERIENCE

Microsoft Research Ltd., Cambridge, UK

Research Intern

May – July 2017

Developed and prototyped unique solutions to trusted computing problems in the cloud.

Microsoft Corp., Redmond, Washington USA

Software Development Engineer Intern

May – August 2012

Explored optimizations and improvements for Microsoft OneNote during a summer internship.

United States Marine Corps, Camp Pendleton, California USA

Signals Intelligence Analyst, Sergeant

November 2005 – August 2010

Provided detailed signals intelligence analysis and reporting in support combat operations in the Al Anbar province of Iraq during two separate deployments.

OPEN SOURCE
INVOLVEMENT

Racket and Typed Racket

2014 – Present

Contributions to the Racket programming language, especially Typed Racket.

COMMUNITY

Cub Master

December 2014 – Present

Help organize combined scouting activities for youth ages 8-11.

Interfaith Winter Shelter Volunteer

January 2016 – Present

Evening shift volunteer at a low-barrier winter homeless shelter.