

Gordon Stewart

Curriculum Vitae

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EDUCATION

2015	Ph.D. in Computer Science	Princeton University
2011	M.A. in Computer Science	Princeton University
2006	A.B. <i>magna cum laude</i> in Classics	Harvard University

EMPLOYMENT

Aug. 2015-	Ohio University, Athens, OH	Assistant Professor, School of EECS.
Apr. 2015-Jul. 2015	Princeton University, Princeton, NJ	Postdoctoral Researcher.
2013	Microsoft Research, Cambridge, UK	Summer Research Intern.
2011	IMDEA Software, Madrid, Spain	Summer Research Intern.
2007-2009	Harvard University, Cambridge, MA	Systems Administrator.
2006-2007	Tufts University, Medford, MA	Research Programmer/Analyst.

AWARDS AND HONORS

2013 Wu Prize for Excellence, Princeton School of Engineering and Applied Science.
2010 Honorable Mention, NSF Graduate Research Fellowship Program.
2009 University Fellowship, Princeton University.

GRANTS

2013 Dean's Fund for Scholarly Travel, Graduate School, Princeton University.
2012 ACM SIGPLAN Professional Activities Committee Student Travel Award.
2011 ACM SIGPLAN Professional Activities Committee Student Travel Award.

PUBLICATIONS

Refereed Conference Proceedings

- 2015 **Gordon Stewart**, Mahanth Gowda, Geoffrey Mainland, Bozidar Radunovic, Dimitrios Vytiniotis, and Cristina Luengo Agullo. Ziria: A DSL for wireless systems programming. In *Proceedings of the 20th International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS)*, March 2015.
- 2015 **Gordon Stewart**, Lennart Beringer, Santiago Cuellar, and Andrew W. Appel. Compositional CompCert. In *Proceedings of the 42nd ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages (POPL)*, January 2015.
- 2014 Joshua Kroll, **Gordon Stewart**, and Andrew W. Appel. Portable software fault isolation. In *Proceedings of the 27th IEEE Computer Security Foundations Symposium (CSF)*, July 2014.
- 2014 Lennart Beringer, **Gordon Stewart**, Robert Dockins, and Andrew W. Appel. Verified compilation for shared-memory C. In *Proceedings of the 23rd European Symposium on Programming (ESOP)*, April 2014.
- 2013 **Gordon Stewart**. Computational verification of network programs in Coq. In *Proceedings of the 3rd International Conference on Certified Programs and Proofs (CPP)*, December 2013.
- 2013 **Gordon Stewart**, Anindya Banerjee, and Aleksandar Nanevski. Dependent types for enforcement of information flow and erasure policies in heterogeneous data structures. In *Proceedings of the 15th International Symposium on Principles and Practice of Declarative Programming (PPDP)*, September 2013.
- 2012 **Gordon Stewart**, Lennart Beringer, and Andrew W. Appel. Verified heap theorem prover by paramodulation. In *Proceedings of the 17th ACM SIGPLAN International Conference on Functional Programming (ICFP)*, pages 3–14. ACM, 2012.
- 2007 **Gordon Stewart**, Gregor Crane, and Allison Babeu. A new generation of textual corpora: Mining corpora from very large collections. In *Proceedings of the 7th ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL)*, pages 356–365. ACM, 2007.

Book Chapters

- 2014 Andrew W. Appel, Robert Dockins, Aquinas Hobor, Lennart Beringer, Josiah Dodds, **Gordon Stewart**, Sandrine Blazy, and Xavier Leroy. *Program Logics for Certified Compilers*. Cambridge University Press, 2014.
- Chapters: Heap Theorem Prover; Juicy Memories; How to Specify a Compiler; The CompCert Memory Model.

Refereed Workshop Proceedings

- 2011 **Gordon Stewart** and Andrew W. Appel. Local actions for a Curry-style operational semantics. In *Proceedings of the 5th ACM Workshop on Programming Languages Meets Program Verification (PLPV)*, pages 31–42. ACM, 2011.

Demos, Posters, and Extended Abstracts

- 2014 Mahanth Gowda, **Gordon Stewart**, Geoffrey Mainland, Bozidar Radunovic, and Dimitrios Vytiniotis. Poster – Ziria: language for rapid prototyping of wireless PHY. In *Proceedings of the 20th Annual International Conference on Mobile Computing and Networking (MobiCom)*, September 2014.
- 2014 **Gordon Stewart**, Mahanth Gowda, Geoffrey Mainland, Bozidar Radunovic, Dimitrios Vytiniotis, and Doug Patterson. Ziria: Language for rapid prototyping of wireless PHY (demo paper). In *SIGCOMM*, August 2014.
- 2014 **Gordon Stewart**, Mahanth Gowda, Geoffrey Mainland, Bozidar Radunovic, and Dimitrios Vytiniotis. Demo: 802.11 a/g PHY implementation in Ziria, domain-specific language for wireless programming. In *Proceedings of the ACM SIGCOMM Software Radio Implementation Forum (SRIF)*, August 2014.
- 2013 Lennart Beringer, **Gordon Stewart**, Robert Dockins, and Andrew W. Appel. Towards verified shared-memory cooperation for C (*extended abstract*). In *Syntax and Semantics of Low-Level Languages (LOLA)*, June 2013.

Technical Reports

- 2013 **Gordon Stewart**, Mahanth Gowda, Geoffrey Mainland, Bozidar Radunovic, and Dimitrios Vytiniotis. Ziria: Wireless programming for hardware dummies. Technical report, MSR, November 2013.
- 2012 Xavier Leroy, Andrew W. Appel, Sandrine Blazy, and **Gordon Stewart**. The CompCert memory model, version 2. Research report, INRIA, June 2012.

TALKS

Conference and Workshop Talks

- 2015 *Compositional CompCert*. Principles of Programming Languages (POPL), Mumbai, Jan. 16.
- 2013 *Computational Verification of Network Programs in Coq*. Certified Programs and Proofs (CPP), Melbourne, Dec. 11.
- 2013 *Dependent Types for Enforcement of Erasure Policies in Heterogeneous Data Structures*. Principles and Practice of Declarative Programming (PPDP), Madrid, Sept. 17.
- 2012 *Heap Theorem Prover by Paramodulation*. International Conference on Functional Programming (ICFP), Copenhagen, Sept. 11.
- 2012 *Local Actions for a Curry-style Operational Semantics*. Programming Languages Meets Program Verification (PLPV), Austin, TX, Jan. 29.

Other External Talks

- 2014 *Compositional Compilation for C*. School of Electrical Engineering and Computer Science, Ohio University, Nov. 24.
- 2012 *Towards Extensible, Compilable, Concurrent Light Separation Logic*. FLINT Group, Dept. of Computer Science, Yale University, Nov. 20.

Departmental Talks

- 2015 *Verifiable Computing with Lambda (and Friends)*. Prog. Lang. Group, Dept. of Computer Science, Princeton University, Apr. 3.
- 2014 *Ziria: A DSL and Optimizing Compiler for Wireless PHY and Bitsream Programming*. Prog. Lang. Group, Dept. of Computer Science, Princeton University, Nov. 10.
- 2013 *Towards Verified Shared-memory Separate Compilation for C*. DARPA HACMS Site Visit, Dept. of Computer Science, Princeton University, Mar. 29.
- 2013 *Verified Heap Theorem Prover by Paramodulation*. Grad. Student Visit Day, Dept. of Computer Science, Princeton University, Mar. 7.

TEACHING EXPERIENCE

- 2014 TA, Programming Languages, Princeton University, Spring.
- 2012 TA, Advanced Programming Techniques, Princeton University, Spring.
- 2011 TA, Introduction to Computer Science, Princeton University, Spring.
- 2010 TA, Introduction to Computer Science, Princeton University, Fall.

ACADEMIC SERVICE

External Reviewer

- 2015 IEEE Transactions on Wireless Communications.
- 2013 SAIRP 2013: Semantics, Abstract Interpretation, and Reasoning about Programs: Essays Dedicated to David A. Schmidt on the Occasion of his Sixtieth Birthday.
- 2013 ITP 2013: The 4th International Conference on Interactive Theorem Proving.
- 2012 ITP 2012: The 3rd International Conference on Interactive Theorem Proving.

PROFESSIONAL MEMBERSHIPS

- 2010-present Association for Computing Machinery.

STATUS

United States Citizen

REFERENCES

Available upon request.