

# 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.