

# Arjun Narayan

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**INTERESTS** Distributed systems, databases, robustness guarantees, scalability, security.

**EDUCATION** UNIVERSITY OF PENNSYLVANIA Philadelphia, PA  
Ph.D. in Computer Science July 2015  
M.Eng. in Computer Science August 2013  
Research Area: Privacy, Distributed Systems, Security  
Advisor: Andreas Haeberlen

WILLIAMS COLLEGE Williamstown, MA  
*Bachelor of Arts* in Computer Science and Economics June 2010

CAMBRIDGE UNIVERSITY Cambridge, UK  
*Tripas Part II* in Computer Science 2008-09  
As a year of study abroad from Williams College.  
Course of study was identical to a final year Cambridge undergraduate student.

**PROFESSIONAL EXPERIENCE** MICROSOFT RESEARCH Redmond, WA  
*Research Intern* May 2013-August 2013  
I worked on a project to build a statically verified differentially private runtime. This runtime was built atop a larger project to build a verified OS kernel from the ground up.

ITA SOFTWARE Cambridge, Massachusetts  
*Summer Intern, Engineering* May 2008-August 2008

KANE CAPITAL MANAGEMENT Cambridge, Massachusetts  
*Summer Associate* May 2007-August 2007

**TEACHING EXPERIENCE** TEACHING ASSISTANT, CIS 555 Spring 2012  
TEACHING ASSISTANT, MKSE 212 Fall 2011  
TA for two courses, one graduate and one undergraduate. My responsibilities were grading coding assignments, written exams, and holding weekly office hours.

TEACHING ASSISTANT, WILLIAMS COLLEGE  
*Department of Computer Science:*  
CS 373 Artificial Intelligence  
CS 237 Computer Organization and Design  
CS 109 Introduction to Computer Graphics  
*Department of Economics:*  
Econ 251 Intermediate Microeconomics  
Responsibilities included grading quizzes and holding office hours with students.

**AWARDS** Facebook Graduate Fellowship finalist. 2013  
Yahoo Key Scientific Challenges graduate student award (\$5000 prize). 2012

**LANGUAGES** **Fluent:** OCaml, Java, C  
**Comfortable:** Python, R

**PUBLICATIONS** *Distributed Differential Privacy and Applications*

Arjun Narayan  
PhD Thesis, University of Pennsylvania.

*Verifiable Differential Privacy*

Arjun Narayan, Ariel Feldman, Antonis Papadimitriou, Andreas Haeberlen  
ACM European Conference on Computer Systems (**EuroSys 2015**).

*Compute Globally, Act Locally: Protecting Federated Systems from Systemic Threats*

Arjun Narayan, Antonis Papadimitriou, Andreas Haeberlen  
Workshop on Hot Topics in System Dependability (**HotDep 2014**).

*Ironclad Apps: End-to-End Security via Automated Full-System Verification*

Chris Hawblitzel, Jon Howell, Jacob R. Lorch, Arjun Narayan, Bryan Parno, Danfeng Zhang, Brian Zill  
USENIX Symposium on Operating Systems Design and Implementation (**OSDI 2014**).

*Differential Privacy: An Economic Method for Choosing Epsilon*

Justin Hsu, Marco Gaboardi, Andreas Haeberlen, Sanjeev Khanna, Arjun Narayan, Benjamin C. Pierce, Aaron Roth  
IEEE Computer Security Foundations Symposium (**CSF 2014**).

*Linear Dependent Types for Differential Privacy*

Marco Gaboardi, Andreas Haeberlen, Justin Hsu, Arjun Narayan, Benjamin C. Pierce  
ACM Symposium on Principles of Programming Languages (**POPL 2013**).

*DJoin: Differentially Private Join Queries over Distributed Databases*

Arjun Narayan and Andreas Haeberlen  
USENIX Symposium on Operating Systems Design and Implementation (**OSDI 2012**).

*Secure Network Provenance*

Wenchao Zhou, Qiong Fei, Arjun Narayan, Andreas Haeberlen, Boon Thau Loo, Micah Sherr  
ACM Symposium on Operating Systems Principles (**SOSP 2011**).

*Differential Privacy Under Fire*

Andreas Haeberlen, Benjamin C. Pierce, Arjun Narayan  
USENIX Security Symposium (**USENIX Security 2011**).