

# Srinath Setty

Researcher, Microsoft Research

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## Education

08/2008–12/2014	Ph.D., Computer Science	The University of Texas at Austin, Austin, TX
	Adviser: Prof. Michael Walfish	
	Thesis title: Toward practical argument systems for verifiable computation	
	<i>Winner of the Bert Kay best dissertation award from the UT CS department</i>	
08/2008–12/2010	M.S., Computer Science	The University of Texas at Austin, Austin, TX
06/2002–05/2006	B.E., Information Technology	NIT Karnataka (NITK), Surathkal, India
	University Gold medal	

## Employment

12/2014–Present	Researcher, Microsoft Research	Redmond, WA
06/2009–08/2014	Graduate research assistant, UT Austin	Austin, TX
08/2008–05/2009	Graduate teaching assistant, UT Austin	Austin, TX
06/2011–09/2011	Research intern, Microsoft Research	Redmond, WA
07/2006–07/2008	Software Engineer, Yahoo! Research & Development	Bangalore, India
05/2005–08/2005	Research intern, Indian Institute of Science (IISc)	Bangalore, India

## Professional service

- PC member, ACM Conference on Computer and Communications Security (CCS) 2018
- PC member, ACM Symposium on Cloud Computing (SoCC) 2018
- PC member, EuroSys Doctoral Workshop (EuroDW) 2018
- PC member, ACM workshop on Blockchain, Cryptocurrencies, and Contracts (BCC) 2018
- Treasurer, ACM Symposium on Operating Systems Principles (SOSP) 2017
- PC member, ACM workshop on Blockchain, Cryptocurrencies, and Contracts (BCC) 2017
- External reviewer, IEEE S&P 2016, IEEE S&P 2015, CRYPTO 2015, DISC 2014, SOSP 2013, ACM CCS 2010, MICRO 2009

## Advising and student mentoring

06/2017–09/2017	Bernhard Kragl (IST Austria)	at Microsoft Research
05/2017–08/2017	Sebastian Angel (University of Texas at Austin)	at Microsoft Research
05/2017–08/2017	Tyler Hunt (University of Texas at Austin)	at Microsoft Research
05/2017–08/2017	Kevin Sekniqi (Cornell University)	at Microsoft Research
05/2016–08/2016	Ashay Rane (University of Texas at Austin)	at Microsoft Research
05/2016–08/2016	Soumya Basu (Cornell University)	at Microsoft Research
05/2015–08/2015	Chunzhi Su (University of Texas at Austin)	at Microsoft Research
12/2012–05/2014	Zuocheng Ren (University of Texas at Austin)	at UT Austin
09/2012–05/2013	Benjamin Braun (University of Texas at Austin)	at UT Austin
09/2011–05/2012	Nikhil Panpalia (University of Texas at Austin)	at UT Austin

## Awards and honors

2017	USENIX Distinguished paper award
2017	CACM Research Highlights
2014	Winner of the <i>Bert Kay best dissertation award</i> from the University of Texas at Austin
2011	Microsoft Research PhD fellowship (finalist)
2006	University Gold medal, NIT Karnataka Surathkal, India Best outgoing student of the department
2005	Rajiv Gandhi Science Talent Research Fellow

## Teaching

08/2008–05/2009	Teaching assistant	The University of Texas at Austin
	Assisted with teaching for two classes (CS 303E “Elements of Computers and Programming”, and CS 313E “Elements of Software Design”). Held weekly discussion sessions to teach material not covered in class, office hours to help with programming assignments, etc.	

## Publications

- [1] Sebastian Angel, Hao Chen, Kim Laine, and Srinath Setty. PIR with compressed queries and amortized computation. In *IEEE Symposium on Security and Privacy (Oakland)*, May 2018.
- [2] Barry Bond, Chris Hawblitzel, Manos Kapritsos, K. Rustan M. Leino, Jacob R. Lorch, Bryan Parno, Ashay Rane, Srinath Setty, and Laure Thompson. Vale: Verifying high-performance cryptographic assembly code. In *USENIX Security*, August 2017. **USENIX Distinguished paper award.**
- [3] Chris Hawblitzel, Jon Howell, Manos Kapritsos, Jacob R. Lorch, Bryan Parno, Michael L. Roberts, Srinath Setty, and Brian Zill. IronFleet: Proving safety and liveness of practical distributed systems. *Communications of the ACM (CACM)*, 60(7), June 2017.
- [4] Srinath Setty, Chunzhi Su, Jacob R. Lorch, Lidong Zhou, Hao Chen, Parveen Patel, and Jinglei Ren. Realizing the fault-tolerance promise of cloud storage using locks with intent. In *USENIX Symposium on Operating Systems Design and Implementation (OSDI)*, November 2016.
- [5] Sebastian Angel and Srinath Setty. Unobservable communication over fully untrusted infrastructure. In *USENIX Symposium on Operating Systems Design and Implementation (OSDI)*, November 2016.
- [6] Trinabh Gupta, Natacha Crooks, Whitney Mulhern, Srinath Setty, Lorenzo Alvisi, and Michael Walfish. Scalable and private media consumption with popcorn. In *USENIX Symposium on Networked Systems Design and Implementation (NSDI)*, April 2016.
- [7] Chris Hawblitzel, Jon Howell, Manos Kapritsos, Jacob R. Lorch, Bryan Parno, Michael L. Roberts, Srinath Setty, and Brian Zill. IronFleet: Proving practical distributed systems correct. In *ACM Symposium on Operating Systems Principles (SOSP)*, October 2015.
- [8] Riad S. Wahby, Srinath Setty, Zuo Cheng Ren, Andrew J. Blumberg, and Michael Walfish. Efficient RAM and control flow in verifiable outsourced computation. In *Network and Distributed System Security Symposium (NDSS)*, February 2015.
- [9] Benjamin Braun, Ariel J. Feldman, Zuo Cheng Ren, Srinath Setty, Andrew J. Blumberg, and Michael Walfish. Verifying computations with state. In *ACM Symposium on Operating Systems Principles (SOSP)*, November 2013.
- [10] Victor Vu, Srinath Setty, Andrew J. Blumberg, and Michael Walfish. A hybrid architecture for interactive verifiable computation. In *IEEE Symposium on Security and Privacy (Oakland)*, May 2013.
- [11] Srinath Setty, Benjamin Braun, Victor Vu, Andrew J. Blumberg, Bryan Parno, and Michael Walfish. Resolving the conflict between generality and plausibility in verified computation. In *ACM European Conference on Computer Systems (EuroSys)*, April 2013.
- [12] Srinath Setty, Victor Vu, Nikhil Panpalia, Benjamin Braun, Andrew J. Blumberg, and Michael Walfish. Taking proof-based verified computation a few steps closer to practicality. In *USENIX Security*, August 2012.
- [13] Srinath Setty, Richard McPherson, Andrew J. Blumberg, and Michael Walfish. Making argument systems for outsourced computation practical (sometimes). In *Network and Distributed System Security Symposium (NDSS)*, February 2012.

- [14] Prince Mahajan, Srinath Setty, Sangmin Lee, Allen Clement, Lorenzo Alvisi, Mike Dahlin, and Michael Walfish. Depot: Cloud storage with minimal trust. *ACM Transactions on Computer Systems (TOCS)*, 29(4):12:1–12:38, December 2011.
- [15] Srinath Setty, Andrew J. Blumberg, and Michael Walfish. Toward practical and unconditional verification of remote computations. In *Workshop on Hot Topics in Operating Systems (HotOS)*, May 2011.
- [16] Lon Ingram, Ivaylo Popov, Srinath Setty, and Michael Walfish. Repair from a chair: Computer repair as an untrusted cloud service. In *Workshop on Hot Topics in Operating Systems (HotOS)*, May 2011.
- [17] Prince Mahajan, Srinath Setty, Sangmin Lee, Allen Clement, Lorenzo Alvisi, Mike Dahlin, and Michael Walfish. Depot: Cloud storage with minimal trust. In *USENIX Symposium on Operating Systems Design and Implementation (OSDI)*, October 2010.
- [18] Indrajit Roy, Srinath Setty, Ann Kilzer, Vitaly Shmatikov, and Emmett Witchel. Airavat: Security and privacy for MapReduce. In *USENIX Symposium on Networked Systems Design and Implementation (NSDI)*, April 2010.

## Invited and conference talks

December 2017	“VOLT project: Trustworthy distributed ledgers by leveraging an untrusted service provider”, BLOCKCHAIN 2017
November 2017	“VOLT project: Trustworthy distributed ledgers by leveraging an untrusted service provider”, University of Texas Cloud Workshop
July 2017	“Implementations of Probabilistic Proofs: Survey and Next Steps”, DIMACS Workshop on Outsourcing Computation Securely
November 2016	“Realizing the fault-tolerance promise of cloud storage using locks with intent”, conference talk at OSDI
January 2015	“Verifying remote executions”, VMware Research
May 2014	“Verifying remote executions”, IBM T. J. Watson Research Center
April 2014	“Verifying remote executions”, Microsoft Research Silicon Valley
April 2014	“Verifying remote executions”, Microsoft Research Redmond
April 2014	“Verifying remote executions”, Microsoft Research India
March 2014	“Verifying remote executions”, Microsoft Research Cambridge (UK)
February 2014	“Verifying remote executions”, Yahoo! Labs
November 2013	“Verifying computations with state”, conference talk at SOSP
April 2013	“Resolving the conflict between generality and plausibility in verified computation”, conference talk at EuroSys

- August 2012 “Taking proof-based verified computation a few steps closer to practicality”, conference talk at USENIX Security
- May 2011 “Toward practical and unconditional verification of remote computations”, workshop talk at HotOS

## References

Available upon request