

Allen G. Clement

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Education

- Ph.D. in Computer Science** The University of Texas at Austin, 2002-2010.
Advisers: Lorenzo Alvisi and Mike Dahlin
Ph.D. Thesis title: *UpRight Fault Tolerance*
- A.B. in Computer Science** Princeton University, 1996-2000
Adviser: Hervé Brönnimann and Bernard Chazelle
A.B. Thesis title: *MGK: A Geometric Meta Kernel*

Employment

Academic Positions

- 7/12 - present *Tenure-track Faculty*
Max Planck Institute for Software Systems
Head, Robust Systems Research Group
- 10/10 - 6/12 *Postdoctoral Researcher*
Max Planck Institute for Software Systems
Advised by Peter Druschel and Rodrigo Rodrigues
- 1/05 - 10/10: *Graduate Research Assistant*
Department of Computer Sciences, The University of Texas at Austin
Advised by Lorenzo Alvisi and Mike Dahlin
- 6/06 - 8/06: *Research Intern*
Microsoft Research, Silicon Valley Campus
Advised by Leslie Lamport
- 9/03 - 5/04: *Graduate Research Assistant*
Department of Computer Sciences, The University of Texas at Austin
Advised by Tandy Warnow
- 9/01 - 5/02: *Graduate Research Assistant*
Department of Computer Science, The University of British Columbia
Advised by Will Evans
- 7/00 - 7/01: *International Fellow*
Ngee Ann Polytechnic, Singapore

Publications

Refereed Conference Papers

1. “Musketeer: strength in framework diversity,” Ionel Gog, Natacha Crooks, Malte Schwarzkopf, Matthew Grosvener, Allen Clement, and Steven Hand (*under submission*).

2. “Visigoth Fault tolerance,” Daniel Porto, Cheng Li, João Leitão, Allen Clement, Aniket Kate, Flavio Junquiera, and Rodrigo Rodrigues (*under submission*).
3. “SoK: The evolution of sybil defense via social networks,” L. Alvisi, A. Clement, A. Epasto, S. Lattanzi, and A. Panconesi, *IEEE Symposium on Security and Privacy (OAKLAND)*, May 2013.
4. “Defending Against Large-scale Crawls in Online Social Networks,” M. Mondal, B. Viswanath, A. Clement, P. Druschel, K. Gummadi, A. Mislove, and A. Post, *International Conference on Emerging Networking Experiments and Technologies (CoNEXT)*, December 2012.
5. “All about EVE: Execute-Verify Replication for Multi-Core Servers,” M. Kapritsos, Y. Wang, V. Quema, A. Clement, L. Alvisi, and M. Dahlin, *Symposium on Operating System Design and Implementation (OSDI)*, October 2012.
6. “Making Geo-replicated Systems Fast as Possible, Consistent when Necessary,” C. Li, D. Porto, A. Clement, N. Preguica, and R. Rodrigues, *Symposium on Operating System Design and Implementation (OSDI)*, October 2012.
7. “On the (limited) power of non-equivocation,” A. Clement, F. Junquiera, A. Kate, and R. Rodrigues, *Symposium on Principles of Distributed Computing (PODC)*, July 2012.
8. “Regret-freedom isn’t free,” E. Wong, I. Levy, L. Alvisi, A. Clement, and M. Dahlin, *International Conference On Principles Of Distributed Systems (OPODIS)*, December 2011.
9. “Depot: Cloud Storage with Minimal Trust,” P. Mahajan, S. Setty, S. Lee, A. Clement, L. Alvisi, M. Dahlin, and M. Walfish, *Symposium on Operating System Design and Implementation (OSDI)*, October 2010.
10. “Model Checking Coalition Nash Equilibria in MAD Distributed Systems,” F. Mari, I. Melatti, I. Salvo, E. Tronci, L. Alvisi, A. Clement, and H. Li, *Stabilization, Safety, and Security of Distributed Systems (SSS)*, November 2009.
11. “UpRight Cluster Services,” A. Clement, M. Kapritsos, S. Lee, Y. Wang, L. Alvisi, M. Dahlin, and Taylor Riché, *Symposium on Operating Systems Principles (SOSP)*, October 2009.
12. “Making Byzantine Fault Tolerant Systems Tolerate Byzantine Faults,” A. Clement, M. Marchetti, E. Wong, L. Alvisi, and M. Dahlin, *Symposium on Networked Systems Design and Implementation (NSDI)*, April 2009.
13. “FlightPath: Obedience vs. Choice in Cooperative Services,” H. Li, A. Clement, M. Marchetti, M. Kapritsos, L. Robison, L. Alvisi, and M. Dahlin, *Symposium on Operating System Design and Implementation (OSDI)*, December 2008.
14. “Model Checking Nash Equilibria in MAD Distributed Systems,” F. Mari, I. Melatti, I. Salvo, E. Tronci, L. Alvisi, A. Clement, and H. Li, *Formal Methods in Computer Aided Design (FMCAD)*, November 2008.
15. “Matrix Signatures: From MACs to Digital Signatures in Distributed Systems,” A. Aiyer, L. Alvisi, R. Bazzi, and A. Clement, *Symposium on Distributed Computing (DISC)*, September 2008.

16. “BAR Primer,” A. Clement, H. Li, J. Napper, J.P. Martin, L. Alvisi, and M. Dahlin, *Symposium on Dependable Systems and Networking (DSN)*, July 2008.
17. “Zyzyva: Speculative Byzantine Fault Tolerance,” R. Kotla, L. Alvisi, M. Dahlin, A. Clement, and E. Wong, *Symposium on Operating Systems and Principles (SOSP) Award Paper*, Oct 2007.
18. “The Paxos Register,” H. Li, A. Clement, A. Aiyer, and L. Alvisi, *Symposium on Reliable Distributed Systems (SRDS)*, Oct 2007.
19. “Brief Announcement: Theory of BAR Games,” A. Clement, J. Napper, H. Li, J.P. Martin, L. Alvisi, and M. Dahlin, *Symposium on Principles of Distributed Computing (PODC)*, Aug 2007.
20. “BAR Gossip,” H. Li, A. Clement, E. Wong, J. Napper, I. Roy, L. Alvisi, M. Dahlin, *Symposium on Operating Systems Design and Implementation (OSDI)*, Nov 2006.
21. “BAR Tolerance for Cooperative Services,” A. Aiyer, L. Alvisi, A. Clement, M. Dahlin, J. Martin, C. Porth, *Symposium on Operating Systems Principles (SOSP) Award Paper*, Oct 2005 .

Workshop Papers

1. “Position Paper: BFT: The Time is Now,” A. Clement, M. Marchetti, E. Wong, L. Alvisi, and M. Dahlin, *Workshop on Large Scale Distributed Systems and Middleware (LADIS)*, September 2008.
2. “MAD Utility Functions,” A. Clement, *Workshop on Future Directions in Distributed Computing (FuDiCo)*, June 2007.

Journal Articles

1. “Communities, Random Walks, and Social Sybil Defense,” L. Alvisi, A. Clement, A. Epasto, S. Lattanzi, and A. Panconesi. To appear (*Internet Mathematics*).
2. “Depot: Cloud Storage with Minimal Trust,” P. Mahajan, S. Setty, S. Lee, A. Clement, L. Alvisi, M. Dahlin, and M. Walfish, *ACM Transactions on Computer Systems*, v. 29, n. 4, December 2011.
3. “Zyzyva: Speculative Byzantine Fault Tolerance,” R. Kotla, L. Alvisi, M. Dahlin, A. Clement, E. Wong, *ACM Transactions on Computer Systems*, v. 27 n. 4, December 2009.
4. “Zyzyva: Speculative Byzantine Fault Tolerance,” R. Kotla, A. Clement, E. Wong, L. Alvisi, and M. Dahlin, *Communications of the ACM*, v. 51 n. 11, November 2008.

Invited Papers

1. “Exploring the Design Space of Social Network-based Sybil Defense,” B. Viswanath, M. Mondal, A. Clement, P. Druschel, K. Gummadi, A. Mislove, and A. Post, *International Conference on Communication Systems and Networks (COMSNETS)*, January 2012.

2. “Distributed Computing in SOSP and OSDI,” A. Clement, *SIGACT News*, v. 39 n. 3, September 2008.

Thesis

1. “UpRight Fault Tolerance,” A. Clement, PhD Thesis, University of Texas at Austin. December 2010. Available as Technical Report TR-11-10.
2. “MGK: A Geometric Meta Kernel,” A. Clement, Senior thesis (Thesis No. 12134) , Princeton University. May 2000.

Awards and Honors

- **James C. Browne Graduate Fellowship** Awarded annually to an outstanding systems graduate student in the Department of Computer Sciences. (UT-Austin), 2007.
- **IGERT Traineeship in Computational Phylogenetics and Applications to Biology** (UT-Austin), 2003-2004.
- **Dean’s Excellence Award** Awarded annually to outstanding incoming graduate students by the College of Natural Sciences. (UT-Austin), 2002-2003.

Teaching Experience

Courses Taught

<i>Seminar on Operating System Design and Implementation</i>	(University of Saarland)	Winter 2013/2014
<i>Seminar on Fault Tolerant Distributed Real-time Systems</i>	(University of Saarland)	Summer 2013
<i>Distributed Systems</i>	(University of Saarland)	Winter 2012/13

Teaching Assistant

<i>CS 307</i>	<i>Fundamentals of Computer Science</i>	(UT-Austin)	Fall 2004
<i>CS 375</i>	<i>Compilers</i>	(UT-Austin)	Summer 2003
<i>CS 310h</i>	<i>Honors Computer Programming and Architecture</i>	(UT-Austin)	Spring 2003
<i>CS 234</i>	<i>Technical Writing</i>	(UT-Austin)	Fall 2002
<i>CPSC 122/152</i>	<i>Principles of Software Development</i>	(UBC)	Spring 2002
<i>CPSC 420</i>	<i>Advanced Algorithm Design and Analysis</i>	(UBC)	Fall 2001

International Fellow

<i>Introduction to Programming I: Java</i>	(Ngee Ann Polytechnic)	Winter 2001
<i>Introduction to Programming II: Java</i>	(Ngee Ann Polytechnic)	Summer 2000

Service Activities

Program Committees

1. Eleventh USENIX Symposium on Operating Systems Design and Implementation, *OSDI 2014*
2. European Conference on Computer Systems, *EuroSys 2014*
3. Fourth Workshop on Systems for Future Multicore Architectures, *SFMA 2014*
4. Seventh Workshop on Large-Scale Distributed Systems and Middleware, *LADIS 2013*
5. TRIOS: Conference on Timely Results in Operating Systems, *TRIOS 2013*
6. International Conference on Principles of Distributed Systems, *OPODIS 2013*
7. Eighth Workshop on Hot Topics in System Dependability, *HotDep 2012*

Journal Reviews

1. ACM Transactions on Computer Systems , *TOCS*

Poster Committees

1. European Conference on Computer Systems, chair *EuroSys 2014*
2. Twenty-fourth ACM Symposium on Operating Systems Principles, co-chair *SOSP 2013*

Department Service

- 2012-2013: Graduate student admissions committee. (*MPI-SWS*)
- 2007-2010: Graduate representative, Gates Complex/Dell Hall building committee. (*UT Austin*)

Additional Information

Languages

- English — Mother tongue
- French — conversational, B1/B2
- German — conversational, B1/B2