CURRICULUM VITAE
PETER J. KELLEHER

DEPARTMENT OF COMPUTER SCIENCE
INSTITUTE FOR ADVANCED COMPUTER STUDIES
THE UNIVERSITY OF MARYLAND
COLLEGE PARK
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1 Personal Information

Associate Professor, University of Maryland.
Computer Science Department.

1.1 Research

My current research centers on security architectures for dynamic and ad-hoc collaboration in distributed environments. Collaborators can often be classified into various roles, which can then be used to drive generation of appropriate rights (in the form of fine-grained capabilities) for the relevant data. Tight integration of the security architecture with the underlying meta-data dissemination prevents information leakage despite gossip-based communication. We are currently building T.Rex, an object sharing system that embodies the above ideas.

1.2 Education

• Ph.D. in Computer Sciences
  Rice University, May 1995
  Dissertation title: Lazy Release Consistency for Distributed Shared Memory
  Supervisor: Willy Zwaenepoel

• Master of Science in Computer Sciences
  Rice University, May 1993

• Bachelor of Science in Electrical Engineering
  Rice University, May 1986

1.3 Employment

7/01 to present  Associate Professor
University of Maryland, College Park

12/94 to 7/01   Assistant Professor
University of Maryland, College Park

1/89 to 12/94   Research Assistant
Rice University
8/88 to 5/90  Teaching Assistant  
Rice University  

6/86 to 8/88  Software Engineer  
General Dynamics  

9/87 to 5/88  Programmer/Analyst  
Rice University  

2  Research, Scholarly, and Creative Activities  

2.1  Books Edited  

2.2  Chapters in Books  

2.3  Articles in Refereed Journals  

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2.4 Articles in Refereed Conferences


2.5 Articles in Refereed Workshops


2.6 Contracts and Grants


2. “Machine Learning and Targeted Advising,” University of Maryland, Principal Investigator (with co-PI Samir Khuller, Chau-Wen Tseng), July 2014 - July 2014, $72,000.

3. “Machine Learning and Targeted Advising,” University of Maryland, Principal Investigator (with co-PIs Samir Khuller, Chau-Wen Tseng), July 2013 - July 2014, $76,000.
4. “Data Staging and Virtual Clusters in Robust Desktop Grids,” National Science Foundation, Principal Investigator (with co-PIs Alan Sussman and Derek Richardson), September 2009 - August 2012, $475,000.


9. “Employing Peer-to-Peer Services for Robust Grid Computing”, National Science Foundation, co-PI (with PI A. Sussman, co-PIs B. Bhattacharjee, D. Richardson), September 2005 - August 2006, $60,000.


2.7 Fellowships, Prizes and Awards

2. NSF Faculty Early Career Development Award, 1996-2000.
3. ORAU Junior Faculty Enhancement Award, Honorable Mention, 1996.

2.8 Editorial Boards and Reviewing Activities for Learned Publications


2.9 Research Software

1. CVM: A high-performance distributed shared memory implementation that facilitates protocol experimentation. Unique features include multiple protocols and multi-threading support. Released on the Internet and used by many projects worldwide. Over 500 copies downloaded to date.
3. Alpha: Macintosh programmers text editor used by tens of thousands of users world-wide.

3 Teaching and Advising

3.1 Course and Curriculum Development

1. CMSC 414 - Computer and Network Security (2000) Created a new computer and network security course from scratch. The course included a series of programming projects that stress all aspects of building secure systems, from private-key encryption algorithms through message privacy and integrity, to authentication. The course included an entirely new series of programming projects, not based on similar courses elsewhere. This course was previewed as CMSC 498k in Spring, 2000, and taught in Fall 2000 for the first time.

3.2 Teaching Awards and Other Special Recognition

1. Teaching Excellence Award for Faculty - Department of Computer Science, May 1996.
3.3 Advising: Research Advisor

3.3.1 Undergraduate


3.3.2 Masters

- Alan Leis, 2018-.

3.3.3 Doctoral (Completed)

- Kritchalach Thitikamol, graduated May 2000, currently at Thammasat University.
- Ugur Cetintemel, graduated December 2001, currently at Brown University.
- Bujor Salehi, graduated December 2003, currently at Google.
- Vijay Gopalakrishnan, co-advised (with Bhattacharjee), August 2006, currently at ATT.
- Jik-Soo Kim, co-advised (with Sussman), January 2009, currently at Emory University.
- Sukhyung Song, co-advised (with Sussman), graduated July 2012, currently doing postdoctoral research with Dr. Hollingsworth.
- Jaehwan Lee, co-advised (with Sussman), graduated July 2012, currently at Samsung Research.
- Gary Jackson, co-advised (with Sussman), graduated in 2015, currently at Johns Hopkins APL.
- Vasileios Lekakis defended Feb. 26 2018, graduating May 2018, currently at Amazon.
- Benjamin Bengfort, defended November 2018, currently at PingThings.

4 Service

4.1 Professional

4.1.1 Outreach


4.1.2 Unpaid reviewing activities for agencies

4.1.3 Other non-University Panels and Positions


- Program Committee, *The International Conference on Selected Topics in Mobile and Wireless Networking (iCOST’2011)*, 2011.


- Program Committee, *The International Conference on Computer Communications and Networks (IC3N)*, 2010.


- Program Committee, *The International Conference on Computer Communications and Networks (IC3N)*, 2009.

- Program Committee, *The International Conference on Communications*, 2009.


- Program Committee, *The International Conference on Communications*, 2008.


- Program Committee, *The International Conference on Computer Communications and Networks (IC3N)*, 2006.


• Vice-Chair, *International Conference on Parallel Processing*, August 2004.


• Proceedings Chair, *Fourteenth International Parallel Processing Symposium and Tenth Symposium on Parallel and Distributed Processing*, 2001.


• Program Co-Chair, *2nd Annual Workshop on Software Distributed Shared Memory*, June 2000.

• Proceedings Chair, *Thirteenth International Parallel Processing Symposium and Tenth Symposium on Parallel and Distributed Processing*, 2000.

• Panel Member, “Mobile Infrastructure: Myth or Reality?” at *The 10th IEEE Workshop on Research Issues in Data Engineering (RIDE2000)*, May 2000.


• Program Committee, *14th International Conference on Supercomputing*, June 2000.


• Session Chair, *14th International Parallel Processing Symposium and Tenth Symposium on Parallel and Distributed Processing*, 2000.

• Program Co-Chair, 1st Annual Workshop on Software Distributed Shared Memory, June 1999.

• Program Committee, International Conference on Parallel and Distributed Processing Techniques and Applications, 1999.

• Program Committee, Fourth International Workshop on High-Level Parallel Programming Models and Supportive Environments Workshop, 1999.


• Program Committee, Third International Workshop on High-Level Parallel Programming Models and Supportive Environments Workshop, 1998.


4.1.4 Departmental Service

• Building Committee Chair, 2019-2020

• Chair, Lab Committee, 1999 - 2012, 2017-2020.

• Develop/support faculty application software and site, 2004-2016.

• Faculty search committee, 2015-16.

• University Senate, 2015-18.

• Instructor hiring committee, 2014.

• Co-Chair, High School Programming Contest, 2013.

• Teaching Committee, 2010-2011.


• Chair, Dean’s Fellowship Award Committee, 2005 - 2008.


• Chair, technical staff search committee, 2005.

• Member, database/web search committee, 2005.

• Committee on Upper Division Courses, 2003.


• Department Council, 2002-2003.

• Grad Student Applications 1999, 2000.

• Honors Program Chair, 1998-2000.

• Teaching Committee, 1996-1999.
• Lab Committee, 1996-1997.
• Coordinated Graduate Orientation, 1996.

4.1.5 University
• Leading effort to apply machine learning to target advising resources for the Office of Institutional Research, Planning, and Assessment at UMD, 2014-2015.
• CMPS Student Technology Advisory Committee (STAC) 2003-2005.
• College APT Committee 2004-2005.
• UMIACS Chair Search 2003-2004.
• UMIACS APT Committee, 1997-2000.
• Computer Engineering ABET Committee 1999-2000.
• Search Committee for Director of Network Operations, 1997.
• Senior Summer Scholars Committee, 1999-2000.

I assert that the above is all correct as of February 24, 2020

Pete Keleher
Associate Professor
Department of Computer Science