CURRICULUM VITAE

MARCH 2017

PRASAD JAYANTI

James Frank Family Professor of Computer Science, Dartmouth College
Department of Computer Science
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Hanover, NH 03755, USA
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EDUCATION

1993	Ph.D. Cornell University	Computer Science
1988	M.S., University of Delaware	Computer Science
1987	M.S., University of Delaware	Mechanical Engineering
1984	B.Tech., Indian Institute of Technology, Madras	Mechanical Engineering

EXPERIENCE

2010-	James Frank Family Professor of Computer Science, Dartmouth College
2006-	Professor of Computer Science, Dartmouth College
2004-09	Chair, Department of Computer Science, Dartmouth College
1999-06	Associate Professor of Computer Science, Dartmouth College
2004-06	Visiting Professor, IIIT, Hyderabad, India (Summer 2004 and 2005, and Winter 2005 and 2006)
1993-99	Assistant Professor of Computer Science, Dartmouth College
1996-97	Visiting Scientist, I.B.M. Thomas J. Watson Research Lab
1990-93	Research Assistant, Cornell University
1992	Instructor (only for Summer), Cornell University
1989	Instructor (only for Summer), University of Delaware

PROFESSIONAL ACTIVITIES

- Program Committee Member, *37th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS)*, Indian Institute of Technology, Kanpur, India, December 11-15, 2017.
- Program Committee Member, *Fifteenth International Symposium on Distributed Computing (DISC)*, Tokyo, Japan, October 5-9, 2015.
- Program Committee Member, *Sixteenth International Conference on Distributed Computing and Networks (ICDCN)*, Goa, India, January 4-7, 2015.
- Program Committee Member, *Thirty-third Annual ACM Symposium on Principles of Distributed Computing (PODC)*, Paris, France, July 15-18, 2014.
- Program Committee Member, *Fifteenth International Conference on Distributed Computing and Networks (ICDCN)*, Coimbatore, India, January 4-7, 2014.
- Program Committee Member, *Thirty-second Annual ACM Symposium on Principles of Distributed Computing (PODC)*, Montreal, Canada, July 22-24, 2013.

- Program Committee Member, *Thirty-third International Conference on Distributed Computing Systems (ICDCS)*, Philadelphia, USA, July 8-11, 2013.
- Program Committee Member, *Fourteenth International Conference on Distributed Computing and Networks (ICDCN)*, Mumbai, India, January 3-6, 2013.
- Program Committee Member, *Thirty-first Annual ACM Symposium on Principles of Distributed Computing (PODC)*, Madeira, Portugal, July 16-18, 2012.
- Program Committee Member, *Eighth International Conference on Distributed Computing and Internet Technology (ICDCIT)*, Bhubaneshwar, India, February 1-4, 2012.
- Program Committee Member, *Thirteenth International Conference on Distributed Computing and Networks (ICDCN)*, Hong Kong, China, January 3-6, 2012.
- Program Committee Member, *Twelfth International Conference on Distributed Computing and Networks (ICDCN)*, Bengaluru, India, January 2-4, 2011.
- Panelist: CSE Higher Education in India: A National Crisis? Twelfth International Conference on Distributed Computing and Networks (ICDCN), Bengaluru, India, January 2-4, 2011.
- Member, International Advisory Committee, *International Conference on Distributed Computing and Networks (ICDCN)*, since September 2010.
- Program Committee Member, *Twenty-Ninth Annual ACM Symposium on Principles of Distributed Computing (PODC)*, Zurich, Switzerland, July 25-28, 2010.
- Program Committee Member, *Eleventh International Conference on Distributed Computing and Networks (ICDCN)*, Kolkata, India, January 3-6, 2010.
- Program Committee Member, *Twenty-Eighth Annual ACM Symposium on Principles of Distributed Computing (PODC)*, Calgary, Canada, August 10-13, 2009.
- General Co-Chair, *Tenth International Conference on Distributed Computing and Networks (ICDCN)*, Hyderabad, India, January 3-6, 2009.
- Program Committee Member, *Tenth International Conference on Distributed Computing and Networks (ICDCN)*, Hyderabad, India, January 3-6, 2009.
- Guest Editor, in charge of the review process for the top papers from ICDCN 2008 for publication in the journal *Theoretical Computer Science*, 2008-10.
- Program Committee Chair, *Ninth International Conference on Distributed Computing and Networks (ICDCN)*, Kolkata, India, January 5-8, 2008.
- Program Committee Member, *Twenty-seventh Annual Symposium on Foundations of Software Technology and Theoretical Computer Science (FSTTCS)*, New Delhi, December 12-14, 2007.
- Program Committee Member, *Twenty-sixth Annual ACM Symposium on Principles of Distributed Computing (PODC)*, Portland, Oregon, August 12-15, 2007.
- Program Committee Member, *Eighth International Conference on Distributed Computing and Networks (ICDCN)*, Guwahati, India, December 27-30, 2006.

- Program Committee Member, *Twentieth Annual Conference on Distributed Computing (DISC)*, Stockholm, Sweden, September 18-20, 2006.
- Program Committee Member, *Twenty-fourth Annual ACM Symposium on Principles of Distributed Computing (PODC)*, Las Vegas, Nevada, July 17-20, 2005.
- Program Committee Member, *Twenty-fifth IEEE International Conference in Distributed Computing Systems (ICDCS)*, Columbus, Ohio, June 6-10, 2005.
- Program Committee Member, *Twenty-first Annual ACM Symposium on Principles of Distributed Computing (PODC)*, Monterey, California, July 20-24, 2002.
- Steering Committee Member, *International Symposium on Distributed Computing (DISC)*, 1999-2002.
- Program Committee Chair, *Thirteenth International Symposium on Distributed Computing (DISC)*, Bratislava, Slovak Republic, September 27-29, 1999.
- Program Committee Member, *Eighteenth Annual ACM Symposium on Principles of Distributed Computing (PODC)*, Atlanta, Georgia, May 4-6, 1999.
- Program Committee Member, *Tenth International Workshop on Distributed Algorithms (WDAG)*, Bologna, Italy, October 9-11, 1996.
- Program Committee Member, *Ninth International Workshop on Distributed Algorithms (WDAG)*, Le Mont Saint Michel, France, September 13-15, 1995.
- Program Committee Member, *Fourteenth Annual ACM Symposium on Principles of Distributed Computing (PODC)*, Ottawa, Canada, August 20-23, 1995.
- Reviewed articles for the following journals and conferences: Journal of ACM, ACM Transactions on Computer Systems, SIAM Journal on Computing, Information and Computation, Distributed Computing, Information Processing Letters, Journal of Algorithms, Acta Informatica, PODC, WDAG, DISC, ICDCS, STOC, FOCS, and FSTTCS.

HONORS AND AWARDS

- One of the 20 professors given "shout outs" in Dartmouth College's 2017 Yearbook.
- Chosen by Dartmouth's Student Assembly for the *Profiles in Excellence Faculty Teaching Seminar* in March 2015 for receiving most votes for "commitment to undergraduate students."
- Named *James Frank Family Professor of Computer Science* in July 2010.
- *Best Paper Presentation Award* at the 27th Annual ACM Symposium on Principles of Distributed Computing (PODC), Toronto, Canada, August 18-21, 2008. (I shared this award with another paper.)
- *Alfred P. Sloan Research Fellow*, 2000-2002.
- Nominated by Dartmouth for the *New Hampshire Excellence in Education Award*, 2000.
- *Jerome Goldstein Award for Distinguished Teaching* by Dartmouth College, 1999.

- *Melville and Leila Strauss 1960 Faculty Fellow*, 1999.
- *Dartmouth College Faculty Fellowship*, Winter 1997.
- *NSF Research Initiation Award*, August 1994 - July 1998.
- Ph.D. dissertation nominated by Cornell for the *ACM Distinguished Dissertation Award* in 1994. .LP *Excellence in Teaching* Award from the Cornell Engineering Co-op Program and the Co-op Honor Society *Mu Sigma Tau*, January 1992.

EXTERNAL RESEARCH SUPPORT

- Alfred P. Sloan Research Fellowship, $40000, April 2000 - March 2002.
- National Science Foundation, "Efficiently Implementing Wait-Free Shared Objects on Multiprocessors," CCR-9803678, $186629, August 1998 - July 2002.
- National Science Foundation Research Initiation Award, Grant CCR-9410421, "Classifying Shared Objects by their Synchronization Power," $74939, October 1994 - July 1998.

INTERNAL RESEARCH SUPPORT

- James Frank Family Professor, $5000 annual, since July 2010.
- Friedman Family Fellowship, $2000, July 2006 - June 2007.
- Melville and Leila Strauss 1960 Faculty Fellowship, $2000, July 1999 - June 2000.
- Dartmouth College Dean's Venture Fund, $30000, July 1998 - June 2004.
- Dartmouth College Startup Award and Burke Award, $30000, July 1993 - June 1996.

REFEREED CONFERENCE PUBLICATIONS

1. Chien-Chung Huang and Prasad Jayanti. Priority Mutual Exclusion: Specification and Algorithm. In *Proceedings of International Conference on Distributed Computing* (DISC), Paris, France, September 27-29, 2016, Lecture Notes in Computer Science, Vol 9888, Springer, Berlin, Heidelberg, Pages 385-398.
2. M. Diamond, P. Jayanti, and J. Leichtling. Enhancing Readers-Writers Exclusion with Upgrade/Downgrade. In *Proceedings of the International Conference on Networked Systems (NETYS)*, Agadir, Morocco, May 13-15, 2015, Lecture Notes in Computer Science 9466, Springer.
3. P. Jayanti and Z. Liu. Abortable Reader-Writer Locks Are No More Complex Than Abortable Mutual-Exclusion Locks. In *Proceedings of the International Symposium on Distributed Computing (DISC)*, Salvador, Brazil, October 16-18, 2012.
4. N. Bansal, V. Bhatt, P. Jayanti, and R. Kondapally. Tight Time-Space Tradeoff for Mutual Exclusion. In *Proceedings of the 44th Annual ACM Symposium on Theory of Computing (STOC)*, New York, NY, May 19-22, 2012.

5. V. Bhatt and P. Jayanti. Specification and Constant RMR Algorithm for Phase-Fair Reader Writer Lock. In *Proceedings of the International Conference on Distributed Computing and Networking*, Bengaluru, India, January 2-5, 2011, Lecture Notes in Computer Science 6522, Springer.

6. V. Bhatt and P. Jayanti. Constant RMR Solutions to Reader Writer Synchronization. *Proceedings of the 29th Annual ACM Symposium on Principles of Distributed Computing (PODC)*, Zurich, Switzerland, July 25-28, 2010. (selected for the Best Paper Session and was invited to a special issue of *Distributed Computing*).

7. V. Bhatt and P. Jayanti. On the Existence of Weakest Failure Detectors for Mutual Exclusion and l-Exclusion In *Proceedings of the 23rd International Symposium on Distributed Computing (DISC 2009)*, Elche, Spain, September 2009, Lecture Notes in Computer Science 8805, Springer.

8. V. Bhatt, N. Christman, and P. Jayanti. Extracting Quorum Failure Detectors. *Proceedings of the 28th Annual ACM Symposium on Principles of Distributed Computing (PODC)*, Calgary, Canada, August 10-13, 2009.

9. P. Jayanti and S. Toueg. Every Problem has a Weakest Failure Detector. *Proceedings of the 27th Annual ACM Symposium on Principles of Distributed Computing (PODC)*, Toronto, Canada, August 18-21, 2008.

10. P. Jayanti and S. Petrovic. Efficiently Implementing LL/SC Objects Shared by an Unknown Number of Processes. In *Proceedings of the 7th International Workshop on Distributed Computing (IWDC)*, Kharagpur, India, December 27-30, 2005.

11. P. Jayanti and S. Petrovic. Logarithmic Time Single-Deleter Multiple-Inserter Wait-Free Queues and Stacks. In *Proceedings of FSTTCS 2005: the 25th International Conference on Foundations of Software Technology and Theoretical Computer Science*, Hyderabad, India, December 15-18, 2005, Lecture Notes in Computer Science 3821, Springer.

12. P. Jayanti and S. Petrovic. Efficiently Implementing a Large Number of LL/SC Objects. In *Proceedings of the 9th International Conference on Principles of Distributed Systems (OPODIS)*, Pisa, Italy, December 12–14, 2005.

13. P. Jayanti and S. Petrovic. Efficient Wait-Free Implementation of Multiword LL/SC Variables. In *Proceedings of the 25th IEEE International Conference on Distributed Computing Systems (ICDCS)*, Columbus, Ohio, June 6-10, 2005.

14. P. Jayanti. An Optimal Multi-Writer Snapshot Algorithm. In *Proceedings of the 37th Annual ACM Symposium on Theory of Computing (STOC)*, Baltimore, Maryland, May 21-24, 2005.

15. P. Jayanti, S. Petrovic and N. Narula. Read/Write-Based Fast Path Transformation for FCFS Mutual Exclusion. In *Proceedings of SOFSEM 2005: the 31st Conference on Current Trends in Theory and Practice of Computer Science*, Liptovsky Jan, Slovakia, January 22-28, 2005, Lecture Notes in Computer Science 3381, Springer.

16. P. Jayanti. Adaptive and Efficient Abortable Mutual Exclusion. In *Proceedings of the 22nd Annual ACM Symposium on Principles of Distributed Computing (PODC)*, July 2003, pages 295-304.

17. P. Jayanti and S. Petrovic. Efficient and Practical Constructions of LL/SC Variables. In *Proceedings of the 22nd Annual ACM Symposium on Principles of Distributed Computing (PODC)*, July 2003, pages 285-294.

18. P. Jayanti, S. Petrovic and K. Y. Tan. Fair Group Mutual Exclusion. In *Proceedings of the 22nd Annual ACM Symposium on Principles of Distributed Computing (PODC)*, July 2003, pages 275-284.

19. P. Jayanti. f-Arrays: Implementations and Applications. In *Proceedings of the 21st Annual ACM Symposium on Principles of Distributed Computing (PODC)*, July 2002.

20. P. Jayanti, K. Y. Tan, G. Friedland and A. Katz. Bounding Lamport's Bakery Algorithm. In *Proceedings of SOFSEM 2001: the 28th Conference on Current Trends in Theory and Practice of Informatics*, November/December 2001, Lecture Notes in Computer Science 2234, Springer.

21. P. Jayanti. A Complete and Constant Time Wait-free Implementation of CAS from LL/SC and Vice Versa. In *Proceedings of the 12th International Symposium on Distributed Computing (DISC)*, September 1998, Lecture Notes in Computer Science 1499, Springer.

22. P. Jayanti. A Time Complexity Lower Bound for Randomized Implementations of Some Shared Objects. In *Proceedings of the 17th Annual ACM Symposium on Principles of Distributed Computing (PODC)*, June 1998.

23. P. Jayanti. A Lower Bound on Local Time Complexity of Universal Constructions. In *Proceedings of the 17th Annual ACM Symposium on Principles of Distributed Computing (PODC)*, June 1998.

24. T. D. Chandra, P. Jayanti, and K. Y. Tan. A Polylogarithmic Time Wait-Free Construction for Closed Objects. In *Proceedings of the 17th Annual ACM Symposium on Principles of Distributed Computing (PODC)*, June 1998.

25. P. Jayanti and S. Khanna. On the Power of Multi-Objects. In *Proceedings of the 11th International Workshop on Distributed Algorithms (WDAG)*, September 1997, Lecture Notes in Computer Science 1320, Springer.

26. P. Jayanti, K. Y. Tan, and S. Toueg. Time and Space Lower Bounds for Non-Blocking Implementations. In *Proceedings of the 15th Annual ACM Symposium on Principles of Distributed Computing (PODC)*, May 1996.

27. T. D. Chandra, V. Hadzilacos, P. Jayanti, and S. Toueg. Wait-Freedom vs. t-Resiliency and the Robustness of Wait-Free Hierarchies. In *Proceedings of the 13th Annual ACM Symposium on Principles of Distributed Computing (PODC)*, August 1994.

28. P. Jayanti. On the Robustness of Herlihy's Hierarchy. In *Proceedings of the 12th Annual ACM Symposium on Principles of Distributed Computing (PODC)*, August 1993.

29. P. Jayanti and S. Toueg. Some Results on the Impossibility, Universality, and Decidability of Consensus. In *Proceedings of the 6th International Workshop on Distributed Algorithms (WDAG)*, November 1992, Lecture Notes in Computer Science 647, Springer-Verlag.

30. P. Jayanti, T. D. Chandra, and S. Toueg. Fault-Tolerant Wait-Free Shared Objects. In *Proceedings of the 33rd Annual IEEE Symposium on Foundations of Computer Science (FOCS)*, October 1992.

31. P. Jayanti, E. L. Lloyd, and A. S. Sethi. Complexity of Concurrent Reading and Writing. In *Proceedings of the 5th International Workshop on Distributed Algorithms (WDAG)*, October 1991, Lecture Notes in Computer Science 579, Springer-Verlag.

32. P. Jayanti and S. Toueg. Wakeup under Read/Write Atomicity. In *Proceedings of the 4th International Workshop on Distributed Algorithms (WDAG)*, September 1990, Lecture Notes in Computer Science 486, Springer-Verlag.

JOURNAL PUBLICATIONS

1. T.D. Chandra, V. Hadzilacos, P. Jayanti, and S. Toueg. Generalized Irreducibility of Consensus and the Equivalence of t-Resilient and Wait-Free Implementations of Consensus. *SIAM Journal on Computing*, 2004, Volume 34, Number 2, Pages 333-357.

2. P. Jayanti, K. Y. Tan and S. Toueg. Time and Space Lower Bounds for Nonblocking Implementations. *SIAM Journal on Computing*, 2000, Volume 30, Number 2, Pages 438-456.

3. P. Jayanti, J. E. Burns, and G. L. Peterson. Almost Optimal Single Reader Single Writer Atomic Register. *Journal of Parallel and Distributed Computing (JPDC)*, 2000, Volume 60, pages 150-168.

4. P. Jayanti, T. D. Chandra, and S. Toueg. The Cost of Graceful Degradation for Omission Failures. *Information Processing Letters (IPL)*, 1999, Volume 71, pages 167-172.

5. P. Jayanti. Solvability of Consensus: Composition Breaks Down for Nondeterministic Types. *SIAM Journal on Computing*, 1998, Volume 28, Number 3, Pages 782-797.

6. P. Jayanti, T. D. Chandra, and S. Toueg. Fault-Tolerant Wait-Free Shared Objects. *Journal of ACM (JACM)* May 1998, Volume 45, Number 3, pages 451-500.

7. P. Jayanti. Robust Wait-Free Hierarchies. *Journal of ACM (JACM)*, July 1997, Volume 44, Number 4, pages 592-614.

INVITED PUBLICATIONS

Wait-Free Computing. In *Proceedings of the 9th International Workshop on Distributed Algorithms (WDAG)*, Le Mont St. Michel, September 1995, Lecture Notes in Computer Science 972, Springer.

BOOK EDITOR

1. S. Rao, M. Chatterjee, P. Jayanti, C. S. Murthy, S. Saha, Editors. *Proceedings of the 9th International Conference on Distributed Computing and Networking*, ICDCN 2008, Kolkata, India, January 2008. LNCS 4904, Springer.

2. P. Jayanti, Editor. *Proceedings of the 13th International Symposium of Distributed Computing*, DISC '99, Bratislava, Slovak Republic, September '99. LNCS 1693, Springer.

INVITED CONFERENCE/WORKSHOP LECTURES

1. The Role of Specification in the Problem Solving Enterprise. *International Conference on Distributed Computing and Networking (ICDCN)*, Coimbatore, India, January 4-7, 2014.

2. Wait-Free Computing. *Sixth Annual Research Day on Global Computing*, Swiss Federal Institute of Technology, Lausanne, Switzerland, July 2002.

3. Generalized Snapshot and the Conflict Exclusion Problem. *Perspectives on Algorithms and Distributed Algorithms*, Center International de Rencontres Mathematiques, Luminy, France, May 21-24, 2001.

4. Generalized Atomic Snapshots. *Workshop on Complexity Issues in Parallel and Distributed Computation*, Fields Institute, Toronto, Canada, June 1998.

5. Wait-Free Computing. *The Ninth Annual International Workshop on Distributed Algorithms*, Le Mont St. Michel, France, September 1995.

Ph.D. STUDENTS

Anup Joshi (ongoing).

Vibhor Bhatt (2011).
Thesis: Reader-Writer Lock: Rigorous Formulations and Constant RMR Algorithms

Srdjan Petrovic (2005).
Thesis: Efficient Algorithms for Implementing Wait-Free LL/SC Variables.

King Y. Tan (2003).
Thesis: On the Complexity of Implementing Certain Classes of Shared Objects.

M.S. STUDENTS

Zhiyu Liu (2012).
Thesis: Efficient Abortable Reader-Writer Exclusion.

Sahil Surana (2010).
Thesis: Fair Conflict Exclusion.

Feng Cao (2003).
Thesis: Efficient Semi Wait-Free Queue and Stack Algorithms.

Sanjay Khanna (1997).
Thesis: On the Power of Multi-Objects.

EXTERNAL Ph.D. THESIS EXAMINER

Robert Danek, University of Toronto, December 2010

Wojciech Golab, University of Toronto, June 2010

Ph.D. / M.S. THESIS COMMITTEES

Sagar Kale (Ph.D., ongoing)

Ranganath Kondapally (Ph.D., 2013)

Joshua Brody (Ph.D., 2010)

Song Ye (Ph.D., 2006)

Li Shen (Ph.D., 2004)

John Thomas (M.S., 2004)

Stavros Kolliopoulos (Ph.D., 1998)

Perry Fizano (Ph.D., 1995)

UNDERGRADUATE THESIS STUDENTS

John Martin '17 (ongoing).
Thesis: Lower and Upper Bounds for Readers-Writers Synchronization Using CAS.

Jake Leichtling '14.
Thesis: Enhancing Reader/Writer Locks with Upgrade and Downgrade.

John Bowman '11.
Thesis: Obstruction-free Snapshot, Obstruction-free Consensus, and Fetch&Add mod k.

Jonathan Choi '11.
Thesis: A Solution to k-Exclusion with $O(\log k)$ RMR Complexity.

Mi chael Diamond '11.
Thesis: Reader-Writer Exclusion Supporting Upgrade and Downgrade with Reader-Priority.

Matthew Elkherj '11.
Thesis: Reader-Writer Exclusion Supporting Upgrade and Downgrade with Starvation-Freedom.

Nancy Zheng '11.
Thesis: Constant-RMR Abortable Reader-Priority Reader-Writer Algorithm.

Chase Decker '10.
Honor's Thesis: Efficient Non-Blocking Solution to k-Assignment.

Andrew Wansley '10.
Honor's Thesis: Experimental Evaluation of Reader/Writer Synchronization Protocols.

Kevin Fischer '09.
Honor's Thesis: Concurrency Versus Fairness - A Tradeoff in Group Mutual Exclusion.

Nicholas Christman '08.
Honor's Thesis: The Weakest Failure Detector to Solve Mutual Exclusion.

Khanh Do Ba '06.
Honor's Thesis: Wait-Free and Obstruction-Free Snapshot.

Rachel Ringel '04.
Honor's Thesis: Efficient Construction of Multi-word Reader/Writer Variables.

Sam Slee '04.
Honor's Thesis: Adaptive Long-lived Renaming in Logarithmic Time.

Neha Narula '03.
Honor's Thesis: Avoiding Expensive Synchronization Operations. in the Absence of Contention.

Kwang-Hyun Baek '02.
Honor's Thesis: An Adaptive Priority Mutual Exclusion Algorithm.

Maxence Crossley '02.
Honor's Thesis: Experimental Evaluation of Mutual Exclusion Algorithms.

Bin Song '96.
Honor's Thesis: A Tight Lower Bound for 1-tolerant Self-implementation of Consensus.

NON-THESIS UNDERGRADUATE RESEARCH ADVISING

William Vranos '16, Thesis Credit, Winter 2016.

Avery Feingold '18, Presidential Scholar, Fall 2015.

Nancy Zheng '11, Independent Study, Spring 2011.

Brevan D'Angelo '10, Presidential Scholar, Winter and Spring 2009.

Greg Friedland '99 and Amir Katz '99, Reading course, Spring 1999 (resulted in a publication on bounding Lamport's Bakery algorithm).

Bin Song '96, Presidential Scholar, Winter and Spring 1995.

Oliver Will '96, Presidential Scholar, Winter and Spring 1995.

GRADUATE COURSES TAUGHT

- Advanced Algorithms (CS 231). Winter 2017.
- Theory of Distributed Computing (CS 149/185). Winter 2016, Spring 2014, 2013; Fall 2010, 2006, 2001; Spring 2009; Winter 2003, 2000, 1998; Spring 1994.
- Theory of Computation (CS 109). Spring 2007, 2004-05; Winter 1994-96, 1998-99, 2001-03.

UNDERGRADUATE COURSES TAUGHT

- Theory of Distributed Computing (CS 49/85). Winter 2016, 2003, 2000, 1998; Spring 2014, 2013, 2009, 1994; Fall 2010, 2006, 2001.
- Algorithms (CS 31/25). Winter 2017, 2012; Fall 2014, 2013, 2012, 2009, 2008, 2007, 2005, 2004; Spring 2009, 2008, 2006, 2004; Summer 1996.

- Theory of Computation (CS 39/49). Winter 2011,2010; Fall 2003, 2002, 2001, 1998, 1995; Summer 1992 (Cornell).
- Problem Solving via Object Oriented Programming (CS 10). Fall 2015; Spring 2012.
- Introduction to Computer Science (CS 5). Spring 2010, 2001.
- Concepts in Computing (CS 4). Winter 2001.
- Data Structures and Programming (CS 15). Winter 2000, 1999, 1995; Fall 1993.
- Discrete Math (CS 30/21). Fall 2016, 2013, 2011; Winter 2016, 2015, 2013, 2012, 2000 (Co-taught with Professor Shemanske).
- Computer Architecture (CS 37). Summer 1999; Spring 1998, 1996, 1995.
- Introduction to Programming. Summer 1989 (University of Delaware).

COLLEGE COMMITTEES

- Member, Tucker Council.
- Member, Faculty Committee for the Scholarly Innovation and Advancement Awards, Winter 2016.
- Co-Chair, Search Committee for the Inaugural Dean and Chaplain of the Tucker Center for Spiritual Life, 2015-16.
- Member, Committee on Organization and Policy (COP), 2012-15.
- Member, Working Group for the new Tucker Center for Religious and Spiritual Life, Fall 2014.
- Member, Graduate Education for the Future Strategic Planning Working Group.
- Member, Committee Advisory to the President (CAP), 2008-2011.
- Member, Dean of Faculty Search Committee, 2010.
- Member, Committee for Standard 5 of Dartmouth's Reaccreditation Review, 2009-10.
- Member, Committee on Priorities, 2007-2008.
- Member, Neukom Advisory Board, 2006-2008.
- On the Alternate Faculty Pool of Committee on Standards, 2001-03.
- Member, Committee on Standards, Winter and Spring 2001.
- Member, Committee on Standards, Fall 1999 and Spring 2000.
- Member, Committee on Instruction, Winter 1996.

DEPARTMENTAL COMMITTEES

- Undergraduate Adviser, 2015-17.
- Department Teaching Committee, 2016-17.
- Department Chair, 2004-09.
- Co-Chair, Computer Science Building Committe, 2004-09
- Member, Department Visitor Committee, 2004-09.
- Ph.D. Program Adviser, 2009-current, Summer & Spring 2006, Fall 2005, Spring 2005, Fall 2004, 2001-04, 2000-01 (except Fall), 1999-00 (Summer and Spring), 1998-99, 1995-96.
- Chair, Graduate Committee, 2009-13.
- Chair, Computer Science department's Neukom Search Committee, Fall 2005.
- Member, Computer Science department's Neukom Search Committee, Winter 2006.
- Chair, Ph.D. Admissions Committee, 2003-04, 1997-98.
- Chair, M.S. Admissions Committee, 2002-03 and 1999-2000.
- Member, Faculty Recruiting Committee, 2001-02, 2000-01.
- Member, Ph.D. Admissions Committee, 1995-96, 1994-95, 1993-94.
- Member, Master's Admissions Committee, 2014-15, 2011-12, 2001-02, 2000-01.
- M.S. Program Adviser, Fall 2015 and 1999-2000 (Winter and Spring)
- Chair, Colloquium Organization Committee, 1994-95.
- Member, Undergraduate Program Committee, 1994-95.
- Member, Kemeny Computing Contest Panel, 1993-94.

CAMPUS ACTIVITIES

- Faculty Adviser to *Shanti*, the Hindu Student Group at Dartmouth College, from its recognition in December 2002 to present.
- Delivered the lecture *The excitement of algorithmic research* to Dartmouth's Undergraduate Journal of Science Club, February 2016.
- Delivered the lecture *Analysing Mutual Exclusion with a Game* to Dartmouth's SIAM Student Chapter, January 28, 2015.
- Member of the Panel that discussed the play *Ganesh Versus The Third Reich* hosted by the Hopkins Center for the Arts, Dartmouth College, January 17, 2013.
- Panel speaker at the Second Annual Undergraduate Philosophy Conference organized by Aporia, the philosophy journal run by Dartmouth students, April 10, 2009. Topic: What role can philosophy play in religion? Are there aspects of religion which philosophy cannot explain or apply to?

- Organized a multi-faith prayer service "Remembering the victims of Mumbai terrorist attacks," Rollins Chapel, December 5, 2008. Hindu, American Indian, Buddhist, Christian, Jain, Jewish, Muslim, and Sikh religious leaders/groups spoke and sang bhajans.
- Performed (with Aparna Jayanti) Hindu Prayer at *Dartmouth College's Annual Celebration of Martin Luther King, Jr.*, January 19, 2004.
- Delivered the lecture Non-violence in Hinduism at *Dartmouth College's Annual Celebration of Martin Luther King, Jr.*, January 18, 2004.
- Served on the faculty panel for the orientation of the incoming first-year international students of the class of 2007, organized by Dartmouth College International Office, July 2003.
- Served as a member on the panel *Professors of Faith* organized by Tucker Foundation, November 14, 2002. I spoke about and represented Hinduism.
- Worked with students to form and get recognition for *Shanti*, the Hindu Student Group at Dartmouth College. (The group was recognized by Dartmouth's Office of Religious and Spiritual Life in December 2002.)
- Served on the Kosher-Halal-Sakahara committee to include the Sakahara (vegetarian) option at the Pavilion, the college's new dining hall, 2001-02.