SRINIVASAN SESHAN

EDUCATION

12/95 Doctor of Philosophy in Computer Science
5/93   Master of Science in Computer Science
University of California at Berkeley
Advisor: Randy H. Katz
PhD Thesis: "Reducing Handoff Latency in Cellular Wireless Data Networks"
MS Thesis: "An Efficient Network Interface for the RAID-II File Server"

5/90   Bachelor of Science with High Honors in Electrical Engineering & Computer Science
University of California at Berkeley

EMPLOYMENT

9/11 – 9/15   **Associate Department Head for Graduate Education, Computer Science Dept., Carnegie Mellon University**
7/11 – present   **Full Professor, Computer Science Dept., Carnegie Mellon University**
7/03 – 7/11   **Associate Professor, Computer Science Dept., Carnegie Mellon University**
6/04 – 6/06   **Finmeccanica Associate Professor, Computer Science Dept., Carnegie Mellon University**
9/00 – 6/03   **Assistant Professor, Computer Science Dept., Carnegie Mellon University**
- Founded **D**istributed systems, **N**etwork protocols & **A**pplications (DNA) research group
- Current research topics explore new approaches in overlay networking, sensor networking, online multiplayer games and wide-area Internet routing

12/95 – 8/00 Research Staff Member, IBM T.J. Watson Research
- Member of the Networking and Security department
- Worked on the characterization of wide area traffic on the Internet. Objective of this work was to identify possible improvements in TCP, HTTP and network application design
- Worked on firewall design and implementation. Objective of this work was to build a high performance firewall that can be easily modified to support new applications and network protocols

1/99 – 5/99   Lecturer and Visiting Scientist, Massachusetts Institute of Technology
- Collaborated with Professor Hari Balakrishnan and his graduate students on the Wireless Network of Devices (WIND) and Congestion Manager (CM) projects

I. PUBLICATION LIST

CHAPTERS IN BOOKS

1. H. Balakrishnan, V. N. Padmanabhan, S. Seshan, and R. Katz. *"A Comparison of Mechanisms for Improving TCP Performance over Wireless Links,"* Chapter 10.4, pages 401-419 in **Mobility: Processes, Computers, and Agents**. Addison-Wesley, February 1999.
2. G. Nychis, S. Seshan, P. Steenkiste. "Supporting Cognitive Radio Network Protocols on Software-defined Radios," Chapter 7 in **Emerging Wireless Technologies and the Future Internet**, 2010.

REFEREED JOURNAL PAPERS - PUBLISHED

3. D. Naylor, M. K. Mukerjee, P. Agyapong, R. Grandl, R. Kang, M. Machado, S. Brown, C. Doucette, H. Hsiao, D. Han, T. Kim, H. Lim, C. Ovon, D. Zhou, S. Lee, Y. Lin, C. Stuart, D. Barrett, A. Akella, D. Andersen, J. Byers, L. Dabbish, M. Kaminsky, S. Kiesler, J. Peha, A. Perrig, S. Seshan, M. Sirbu, P. Steenkiste. XIA: Architecting a More Trustworthy and Evolvable Internet. *ACM SIGCOMM Computer Communication Review*, July 2014, Volume 44, Number 3, pp 50-57.
4. J. Pang, B. Greenstein, M. Kaminsky, D. McCoy and S. Seshan. "Wifi-Reports: Improving Wireless Network Selection with Collaboration," *IEEE Transactions on Mobile Computing, Special Issue on Selected Papers from MobiSys 2009*. Dec, 2010, Volume 9, Number 12, pp 1713-1731.
5. S. Jakubczak, D. Andersen, M. Kaminsky, K. Papagiannaki and S. Seshan. "Link-alike: Using Wireless to Share Network Resources in a Neighborhood," *ACM SIGMOBILE Mobile Computing and Communications Review*. Volume 12, Number 4, October 2008.
6. S. Nath, P. Gibbons, S. Seshan, Z. Anderson. "Synopsis Diffusion for Robust Aggregation in Sensor Networks," *ACM Transactions on Sensor Networks*, Volume 4, Number 2, March 2008.
7. A. Akella, B. Maggs, S. Seshan, A. Shaikh and R. Sitaraman. "On the Performance Benefits of Multihoming Route Control," *IEEE/ACM Transactions on Networking*, Volume 16, Number 1, February 2008.
8. A. Akella, G. Judd, S. Seshan and P. Steenkiste. "Self Management in Chaotic Wireless Deployments," *Wireless Networks (WINET) Journal, Special Issue on Selected Papers from MobiCom 2005*. Volume 13, Number 6, pages 737-755, December 2007.
9. A. Akella, S. Chawla, A. Kannan and S. Seshan. "On the Scaling of Congestion in the Internet Graph," *ACM SIGCOMM Computer Communication Review, Special Issue on Science of Network Design*, Volume 34, Number 3, pages 43-55, July 2004.
10. Y. Chu, S. Rao, S. Seshan and H. Zhang. "A Case for End-System Multicast", IEEE *Journal on Selected Areas in Communications special issue on Network Support for Multicast Communications*, Volume 20, Number 8, October 2002.
11. H. Balakrishnan, V. Padmanabhan, S. Seshan and R. Katz. "A Comparison of Mechanisms for Improving TCP Performance over Wireless Links*," IEEE/ACM Transactions on Networking*, Volume 5, Number 6 December 1997.
12. S. Seshan, H. Balakrishnan and R. Katz. "Handoffs in Cellular Wireless Networks: The Daedalus Implementation and Experience," *Kluwer International Journal on Wireless Personal Communications*, January 1997.
13. H. Balakrishnan, S. Seshan, E. Amir and R. Katz. "Improving Reliable Transport and Handoff Performance in Cellular Wireless Networks*," ACM Wireless Networks*, December 1995.
14. P. Chen, E. Lee, A. Drapeau, K. Lutz, E. Miller, S. Seshan, K. Shirriff, D. Patterson and R. Katz. "Performance and Design Evaluation of the RAID-II Storage Server," Journal of Distributed and Parallel Databases, July 1994.

REFEREED JOURNAL PAPERS - SUBMITTED

REFEREED CONFERENCE/WORKSHOP PAPERS

15. R. Wang, M. Veloso and S. Seshan. Active Sensing Data Collection with Autonomous Mobile Robots. *Proceedings of IEEE International Conference on Robotics and Automation (*ICRA'16*),* May 2016, Stockholm, Sweden.
16. H. Liu, M. K. Mukerjee, C. Li, N. Feltman, G. Papen, S. Savage, S. Seshan, G. M. Voelker, D. G. Andersen, M. Kaminsky, G. Porter, and A. Snoeren. Scheduling Techniques for Hybrid Circuit/Packet Networks. *Proceedings of ACM CoNext 2015*, December 2015, Heidelberg, Germany
17. R. Wang, M. Veloso and S. Seshan. Wireless Map-Based Handoffs for Mobile Robots. *Proceedings Workshop on The Path to Success: Failures in rEal Robots (FinE-R)(FINER'15),* October 2015, Hamburg, Germany
18. R. Wang, R. Shroff, Y. Zha, S. Seshan and M. Veloso. Indoor Trajectory Identification: Snapping with Uncertainty, *Proceedings of IEEE/RSJ International Conference on Intelligent Robots and Systems* (IROS'15), September 2015.
19. M. K. Mukerjee, D. Naylor, J. Jiang, D. Han, S. Seshan and H. Zhang. Practical, Real-time Centralized Control for CDN-based Live Video Delivery. *Proceedings of* ACM *Sigcomm 2015*, August 2015, London, UK.
20. R. Wang, M. K. Mukerjee, M. Veloso and S. Seshan. Wireless Map-Based Handoffs for Mobile Robots. *Proceedings of IEEE International Conference on Robotics and Automation (ICRA'15),* Seattle, Washington, May 2015.
21. R. Shroff, Y. Zha, R. Wang, M. Veloso, and S. Seshan. Indoor Trajectory Identification: Snapping with Uncertainty. *Proceeding of Workshops at the Twenty-Ninth AAAI Conference on Artificial Intelligence,* Austin, Texas, January 2015.
22. A. Balachandran, J. Pang, V. Aggarwal, E. Halepovic, S. Seshan, S. Venkataraman, and H. Yan. Modeling Web Quality-of-Experience on Cellular Networks. *Proceedings of the ACM MOBICOM Conference,* Maui, Hawaii, September 2014.
23. G. Nychis, S. Seshan, P. Steenkiste. Using Your Smartphone to Detect and Map Heterogeneous Networks and Devices in the Home. *Proceedings First ACM Workshop on Hot Topics in Wireless,* Maui, Hawaii, September 2014.
24. R. Wang, M. Veloso and S. Seshan. Optimal Snapping of Odometry Trajectories for Route Identification. *Proceedings of IEEE International Conference on Robotics and Automation (ICRA'14),* Hong Kong, China, May 2014.
25. K. Muralidharan, S. Seshan, N. Ramasubbu and R. K. Balan. Handling location uncertainty in event driven experimentation. *Proceedings of 8th ACM International Conference on Distributed Event-Based Systems,* Mumbai, India, May 2014.
26. G. Nychis, C. Tsourakakis, S. Seshan, P. Steenkiste. Centralized, measurement-based, spectrum management for environments with heterogeneous wireless networks. *Proceedings of 2014 IEEE International Symposium on Dynamic Spectrum Access Networks (DYSPAN),* Mclean, VA, April 2014.
27. A. Anand, A. Balachandran, A. Akella, V. Sekar, S. Seshan. Enhancing Multimedia Accessibility and Availability with Information-Bound References. *Proceedings of ACM CoNext 2013,* Santa Barbara, California, December 2013. **Best Paper Award**.
28. A. Balachandran, V. Sekar, A. Akella and S. Seshan. Analyzing the Potential Benefits of CDN Augmentation Strategies for Internet Video Workloads. *Proceedings of the Internet Measurement Conference (IMC),* Barcelona, Spain, October 2013.
29. D. Han, R. Grandl, A. Akella, and S. Seshan. FCP: A Flexible Transport Framework for Accommodating Diversity. *Proceedings of* ACM *Sigcomm 2013,* Hong Kong, August 2013.
30. A. Balachandran, V. Sekar, A. Akella, S. Seshan, I. Stoica, H. Zhang. Developing a Predictive Model of Quality-of-Experience for Internet Video. *Proceedings of ACM Sigcomm 2013,* Hong Kong, August 2013.
31. R. Wang, M. Veloso, and S. Seshan. Iterative Snapping of Odometry Trajectories for Path Identification. *Proceedings of the RoboCup Symposium*, Eindhoven, Germany, July 2013.
32. A. J. Khan, K. Jayarajah, D. Han, A. Misra, R. Balan, and S. Seshan. CAMEO**:** A Middleware for Mobile Advertisement Delivery. *Proceedings of ACM MobiSys 2013,* Taipei, Taiwan*,* June 2013.
33. R. Wang, M. Veloso, and S. Seshan. Multi-Robot Information Sharing for Complementing Limited Perception: A Case Study of Moving Ball Interception. *Proceedings of IEEE International Conference on Robotics and Automation* (ICRA'13), Karlsruhe, Germany, May 2013.
34. U. Weinsberg, Q. Li, N. Taft, A. Balachandran, V. Sekar, G. Iannaccone, S. Seshan. CARE: content aware redundancy elimination for challenged networks. *Proceedings of the 11th ACM Workshop on Hot Topics in Networks*. Redmond, WA, October 2012.

35. A. Balachandran, V. Sekar, A. Akella, S. Seshan, I. Stoica, H. Zhang. A Quest for an Internet Video Quality-of-Experience Metric. *Proceedings of the 11th ACM Workshop on Hot Topics in Networks*. Redmond, WA, October 2012.

36. T. Luong, V. Subbaraju, A. Misra, S. Seshan. Measurement-driven performance analysis of indoor femtocellular networks. *Proceedings of WiNTECH '12*. Istanbul, Turkey, August 2012.

37. G. Nychis, C. Fallin, T. Moscibroda, O. Mutlu, S. Seshan. On-Chip Networks from a Networking Perspective: Congestion and Scalability in Many-Core Interconnects. *Proceedings of ACM Sigcomm 2012*. Helsinki, Finland, August 2012.

38. D. Han, A. Anand, F. Dogar, B. Li, H. Lim, M. Machado, A. Mukundan, W. Wu, A. Akella, D. Andersen, J. Byers, S. Seshan, and P. Steenkiste. XIA: Efficient Support for Evolvable Internetworking. *Proceedings of the USENIX Symposium on Networked Systems Design and Implementation (NSDI '12)*, San Jose, CA, April 2012.

39. D. Han, A. Anand, A. Akella, and S. Seshan. RPT: Re-architecting Loss Protection for Content-Aware Networks. *Proceedings of the USENIX Symposium on Networked Systems Design and Implementation (NSDI '12)*, San Jose, CA, April 2012.

40. A. Khan, V. Subbaraju, A. Misra and S. Seshan. Mitigating the True Cost of Advertisement-Supported "Free" Mobile Applications. *Proceedings of Workshop on Mobile Computing Systems and Applications (HotMobile)*, San Diego, CA, February 2012.

41. A. Anand, F. Dogar, D. Han, B. Li, H. Lim, M. Machado, W. Wu, A. Akella, D. Andersen, J. Byers, S. Seshan, and P. Steenkiste. XIA: An Architecture for an Evolvable and Trustworthy Internet. *Proceedings of the Workshop on Hot Topics in Networking* (*HotNets*), Cambridge, MA, October 2011.

42. U. Javed, D. Han, R. Caceres, J. Pang, S. Seshan, A. Varshavsky. Predicting Handoffs in 3G Networks. *Proceeding of the Third ACM Workshop on Networking, Systems, and Applications on Mobile Handhelds (MobiHeld 2011),* Lisbon, Portugal, October 2011.

43. S. Gollakota, F. Adib, D. Katabi, and S. Seshan. Clearing the RF Smog: Making 802.11n Robust to Cross-Technology Interference. *Proceedings of the SIGCOMM Symposium on Communications Architectures and Protocols,* Toronto, Canada, August 2011.

44. K. Lakshminarayanan, S. Seshan, P. Steenkiste. Understanding 802.11 Performance in Heterogeneous Environments. *Proceedings of ACM SIGCOMM HomeNets Workshop*, Toronto, Canada, August 2011.

45. A. Badam, D. Han, D. Andersen, M. Kaminsky, D. Papagiannaki and S. Seshan. The Hare and the Tortoise: Tackling Wireless Losses by Exploiting Wired Reliability. *Proceedings of 12th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc '11),* Paris, France, May 2011

46. D. Han, D. Andersen, M. Kaminsky, K. Papagiannaki, and S. Seshan. Hulu in the Neighbhorhood. *Proceedings Conference on COMmunication Systems and NETworkS (COMSNETS)*, Bangalore, India, January 2011.

47. A. Anand, A. Akella, V. Sekar and S. Seshan. A Case for Information-Bound Referencing. *Proceedings of the Workshop on Hot Topics in Networking*, Monterey, CA, October 2010.

48. X. Liu, A. Sheth, M. Kaminsky, K. Papagiannaki, S. Seshan, and P. Steenkiste. Pushing the Envelope of Indoor Wireless Spatial Reuse using Directional Access Points and Clients. *Proceedings of ACM Mobicom*, Chicago, IL, September 2010

49. K. Lakshminarayanan, S. Sapra, S. Seshan, and P. Steenkiste. RFDump: An Architecture for Monitoring the Wireless Ether. *Proceedings of ACM CoNEXT*, Rome, Italy, December 2009.

50. X. Liu, A. Sheth, M. Kaminsky, K. Papagiannaki, S. Seshan, and P. Steenkiste. DIRC: Increasing Indoor Wireless Capacity Using Directional Antennas. *Proceedings of the SIGCOMM Symposium on Communications Architectures and Protocols.* Barcelona, Spain, August 2009.

51. J. Pang, B. Greenstein, M. Kaminsky, D. McCoy and S. Seshan. Wifi-Reports: Improving Wireless Network Selection with Collaboration. *Proceedings of the International Conference on Mobile Systems, Applications, and Services (ACM MobiSys)*, Krakow, Poland, June 2009.

52. A. Sheth, S. Seshan and D. Wetherall. Geo-fencing: Confining Wi-Fi Coverage to Physical Boundaries. *Proceedings of Pervasive 2009,* Nara, Japan, May 2009.

53. G. Nychis, T. Hottelier, Z. Yang, S. Seshan, and P. Steenkiste. Enabling MAC Protocol Implementations on Software-defined Radios. *Proceedings of the Symposium on Networked Systems Design and Implementation (NSDI'09)*, Boston, MA, April 2009.

54. D. Han, D. Andersen, M. Kaminsky, K. Papagiannaki, and S. Seshan. Access Point Localization using Local Signal Strength Gradient. *Proceedings of the Passive Active Measurement Conference (PAM)*, Seoul, Korea, April 2009.

55. D. Han, A. Agarwala, D. Andersen, M. Kaminsky, K. Papagiannaki, and S. Seshan. Mark-and-Sweep: Getting the Inside Scoop on Neighborhood Networks. *Proceedings of the Internet Measurement Conference*, Vouliagmeni, Greece, October 2008.

56. A. Anand, A. Gupta, A. Akella, S. Seshan, and S. Shenker. Packet Caches on Routers: The Implications of Universal Redundant Traffic Elimination. *Proceedings of the SIGCOMM Symposium on Communications Architectures and Protocols*, Seattle, WA, Aug 2008.

57. A. Bharambe, J. Douceur, J. Lorch, T. Moscibroda, J. Pang, S. Seshan, and X. Zhuang. Donnybrook: Enabling Large-Scale, High-Speed, Peer-to-Peer Games. *Proceedings of the SIGCOMM Symposium on Communications Architectures and Protocols*, Seattle, WA, Aug 2008.

58. B. Greenstein, D. McCoy, J. Pang, T. Kohno, S. Seshan, and D. Wetherall. Improving Wireless Privacy with an Identifier-Free Link Layer Protocol. *Proceedings of the International Conference on Mobile Systems, Applications, and Services (ACM MobiSys)*, Breckenridge, Colorado, June 2008. **Best Paper Award.**

59. A. Phanishayee, E. Krevat, V. Vasudevan, D. Andersen, G. Ganger, G. Gibson, and S. Seshan. Measurement and Analysis of TCP Throughput Collapse in Cluster-Based Storage Systems, *Proceedings of the USENIX Conference on File and Storage Technologies (FAST)*, San Jose, CA, Feb. 2008.

60. J. Pang, B. Greenstein, D. McCoy, S. Seshan, and D. Wetherall. "Tryst: The Case for Confidential Service Discovery," *Proceedings of the Workshop on Hot Topics in Networking*, Atlanta, GA, Nov. 2007.

61. E. Krevat, V. Vasudevan, A. Phanishayee, D. Andersen, G. Ganger, G. Gibson, and S. Seshan. "On Application-level Approaches to Avoiding TCP Throughput Collapse in Cluster-Based Storage Systems," *Proceedings of the Petascale Data Storage Workshop, Supercomputing*, Reno, NV, Nov. 2007.

62. S. Seshan, X. Liu, and P. Steenkiste. "Interference-Aware Transmission Power Control for Dense Wireless Networks," *Proceedings of the Annual Conference of ITA*, College Park, MD, Sep. 2007.

63. J. Pang, B. Greenstein, R. Gummadi, S. Seshan, and D. Wetherall. "802.11 User Fingerprinting," *Proceedings of ACM Conf. on Mobile Computing and Networking*, Montreal, Canada, Sep. 2007.

64. R. Gummadi, D. Wetherall, B. Greenstein, and S. Seshan. "Understanding and Mitigating the Impact of RF Interference on 802.11 Networks," *Proceedings of the SIGCOMM Symposium on Communications Architectures and Protocols*, Kyoto, Japan, Aug. 2007.

65. J. Pang, P. Gibbons, M. Kaminsky, S. Seshan, and H. Yu. "Defragmenting DHT-based Distributed File Systems," *Proceedings of the International Conference on Distributed Computing Systems (ICDCS)*, Toronto, Canada, June 2007.

66. B. Greenstein, R. Gummadi, J. Pang, M. Chen, T. Kohno, S. Seshan, and D. Wetherall. "Can Ferris Bueller Still Have His Day Off? Protecting Privacy in an Era of Wireless Devices," *Proceedings of the Workshop on Hot Topics in Operating Systems*, San Diego, CA, May 2007.

67. D. Raychaudhuri, N. Mandayam, J. Evans, B. Ewy, S. Seshan, P. Steenkiste. "CogNet – An Architectural Foundation for Experimental Cognitive Radio Networks within the Future Internet," *Proceedings of ACM/IEEE MobiArch 2006*, San Francisco, December 2006.

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69. A. Bharambe, J. Pang and S. Seshan: "A Distributed Architecture for Multiplayer Games," *Proceedings of the Symposium on Networked Systems Design and Implementation (NSDI'06)* , San Jose, CA, May 2006.

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71. S. Nath, P. Gibbons and S. Seshan. "Adaptive Data Placement for Wide-Area Sensing Services," *Proceedings of USENIX FAST 2005*, San Francisco, California, December 2005.

72. J. Campbell, P. B. Gibbons, S. Nath, P. Pillai, S. Seshan and R. Sukthankar. "IrisNet: A Planetary-Scale Architecture for Multimedia Sensors," *Proceedings of the ACM Multimedia Conference*, Singapore, November 2005.

73. A. Akella, G. Judd, S. Seshan and P. Steenkiste. "Self Management in Chaotic Wireless Deployments," *Proceedings of the ACM MobiCom Conference*, Cologne, Germany, September 2005.

74. S. Rao, A. Bharambe, V. Padmanabhan, S. Seshan and H. Zhang. "The Impact of Heterogeneous Bandwidth Constraints on DHT-Based Multicast Protocols," *Proceedings of the IPTPS Workshop*, Ithaca, NY, February 2005.

75. P. Yalagandula, S. Nath, H. Yu, P. Gibbons and S. Seshan. "Beyond Availability: Towards a Deeper Understanding of Machine Failure Characteristics in Large Distributed Systems," *Proceedings of the First Workshop on Real, Large Distributed Systems (WORLDS),* San Francisco, CA, December 2004.

76. A. Bharambe, V. Padmanabhan and S. Seshan. "Supporting Spectators in Online Multiplayer Games," *Proceedings of the Workshop on Hot Topics in Networking*, San Diego, CA, November 2004.

77. S. Nath, P. Gibbons, S. Seshan, and Z. Anderson. "Synopsis Diffusion for Robust Aggregation in Sensor Networks," *Proceedings of the ACM Conference on Embedded Networked Sensor Systems (Sensys),* Baltimore, MD, November 2004.

78. J. Pang, J. Hendricks, A. Akella, B. Maggs, R. De Prisco and S. Seshan. "Availability, Usage, and Deployment Characteristics of the Domain Name System", *Proceedings of the Internet Measurement Conference (IMC),* Taormina, Italy*, October 2004.

79. J. Pang, A. Akella, A. Shaikh, B. Krishnamurthy and S. Seshan. "On the Responsiveness of DNS-based Network Control," *Proceedings of the Internet Measurement Conference (IMC),* Taormina, Italy*, October 2004.

80. S. Nath, Y. Ke, P. Gibbons, B. Karp and S. Seshan. "A Distributed Filtering Architecture for Multimedia Sensors," *Proceedings of the First Workshop on Broadband Advanced Sensor Networks (BaseNets)*, San Jose, CA, October, 2004. **Best Paper Award**.

81. S. Nath, Z. Anderson and S. Seshan. "Choosing Beacon Periods to Improve Response Times for Wireless HTTP Clients," *Proceedings of the ACM International Workshop on Mobility Management and Wireless Access (MobiWac'04),* Philadelphia, PA, September, 2004.

82. A. Bharambe, M. Agrawal and S. Seshan. "Mercury: Supporting Scalable Multi-Attribute Range Queries," *Proceedings of the ACM SIGCOMM Conference*, Portland, OR, August 2004.

83. A.Akella, J. Pang, A. Shaikh, B. Maggs and S. Seshan. "A Comparison of Overlay Routing and Multihoming Route Control," *Proceedings of the ACM SIGCOMM Conference,* Portland, OR, August 2004.

84. A. Akella, A. Shaikh and S. Seshan. "Multihoming Performance Benefits: An Experimental Evaluation of Practical Enterprise Strategies," *Proceedings of the USENIX Annual Technical Conference*, Boston, MA, June 2004.

85. P. Gibbons, B. Karp, Y. Ke, S. Nath and S. Seshan. "IrisNet: An Architecture for Internet-Scale Sensing," *In IEEE Pervasive Computing*, volume 2, number 4, October-December 2003.

86. S. Nath, Y. Ke, A. Deshpande, P. Gibbons, B. Karp and S. Seshan. "IrisNet: An Architecture for Internet-scale Sensing Services," *Demo and Short Paper in the First ACM Conference on Embedded Networked Sensor Systems (SenSys),* Los Angeles, CA, November 2003.

87. A. Akella, H. Balakrishnan and S. Seshan. "The Impact of False Sharing on Shared Congestion Management," *Proceedings of the IEEE International Conference on Network Protocols (ICNP)*, Atlanta, GA, November 2003.

88. A. Akella, S. Seshan and A. Shaikh. "An Empirical Evaluation of Wide-Area Internet Bottlenecks," *Proceedings of the Internet Measurement Conference (IMC) Conference*, Miami, FL, October 2003.

89. S. Nath, P. Gibbons, B. Karp and S. Seshan. "Adaptive Data Placement for Wide-Area Sensing Services." *Poster in the 19th ACM SOSP Conference,* Bolton Landing, NY, October 2003.

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91. A. Akella, S. Seshan and A. Shaikh. "Toward Representative Internet Measurements," *Proceedings of the 3rd New York Metro Area Networking Workshop*, New York, NY, September 2003.

92. A. Akella, B. Maggs, S. Seshan, A. Shaikh and R. Sitaraman. "A Measurement-Based Analysis of Multihoming," *Proceedings of the ACM SIGCOMM Conference*, Karlsruhe, Germany, August 2003.

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94. A. Deshpande, S. Nath, P. Gibbons and S. Seshan. "Cache-and-Query for Wide Area Sensor Databases," *Proceedings of the ACM SIGMOD Conference*, San Diego, CA, June 2003.

95. A. Deshpande, S. Nath, P. Gibbons and S. Seshan. "IrisNet: Internet-Scale Resource-Intensive Sensor Network Services," *Demo and short paper in the ACM SIGMOD Conference*, San Diego, CA, June 2003.

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97. A. Akella, A. Bharambe, M. Reiter and S. Seshan. "Detecting DDoS Attacks on ISP Networks," *Proceedings of the SIGMOD Workshop on Management and Processing of Data Streams*, San Diego, CA, June 2003.

98. M. Agrawal, and S. Seshan. "Development Tools for Distributed Applications," *Proceedings of the HOTOS IX Workshop*, Lihue, HI, May 2003.

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100. S.Nath, A. Deshpande, P. Gibbons and S. Seshan. "Mining a World of Smart Sensors," *Short Paper in Mobile Computing and Communications Review (MC2R)*, Volume 7, Issue 1, January 2003.

101. J. Pan, S. Seshan and C. Faloustos. *"*Fast Correlation-Aware Sampling for Network Data Mining*,"* *Proceedings of the IEEE Globecom Internet Mini-Conference*, Taipei, Taiwan, November 2002.

102. A. Akella, R. Karp, C. Papadimitrou, S. Seshan and S. Shenker. "Selfish Behavior and Stability of the Internet: A Game-Theoretic Analysis of TCP", *Proceedings of the ACM SIGCOMM Conference*, Pittsburgh, PA, August 2002.

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109. D. Andersen, D. Bansal, D. Curtis, S. Seshan and H. Balakrishnan. "System Support for Bandwidth Management and Content Adaptation in Internet Applications," *Proceedings of the USENIX OSDI Conference*, San Diego, CA, October 2000.

110. J. Lilley, J. Yang, H. Balakrishnan and S. Seshan. "A Unified Header Compression Framework for Low-Bandwidth Links," *Proceedings of the ACM MOBICOM Conference*, Boston, MA, August 2000. **Best Student Paper Award**.

111. S. Seshan, M. Stemm and R. Katz. "A Network Measurement Architecture for Adaptive Applications*,"* *Proceedings of the IEEE INFOCOM Conference*, Tel Aviv, Israel, March 2000.

112. H. Balakrishnan, H. Rahul and S. Seshan. "An Integrated Congestion Management Architecture for Internet Hosts*," Proceedings of the ACM SIGCOMM Conference*, Cambridge, MA, September 1999.

113. H. Balakrishnan, S. Seshan, P. Bhagwat and F. Kaashoek. "Self-Organizing Collaborative Environments," *Proceedings of the NSF/DARPA/NIST Workshop on Smart Environments*, Atlanta, GA, July 1999.

114. H. Balakrishnan, H. Rahul and S. Seshan. "An End-System Architecture for Unified Congestion," *Proceedings of the HotOS VII Workshop*, Rio Rico, AZ, March 1999.

115. S. Seshan, M. Stemm and R. Katz. "Benefits of Transparent Content Negotiation in HTTP," *Proceedings of the IEEE Globecom Internet Mini-Conference*, Sydney, Australia, November 1998.

116. E. Brewer, R. Katz, E. Amir, H. Balakrishnan, Y. Chawathe, A. Fox, S. Gribble, T. Henderson, G. Nguyen, V. Padmanabhan, S. Seshan and M. Stemm. "A Network Architecture for Heterogeneous Mobile Computing*," IEEE Personal Communications Magazine*, October 1998.

117. H. Balakrishnan, V. Padmanabhan, S. Seshan, M. Stemm and R. Katz. "TCP Behavior of a Busy Internet Server: Analysis and Improvements*," Proceedings of the IEEE INFOCOM Conference*, San Francisco, CA, March 1998.

118. S. Seshan, M. Stemm and R. Katz. "SPAND: Shared Passive Network Performance Discovery*,"* *Proceedings of the Usenix Symposium on Internet Technologies and Systems (USITS)* Monterey, CA, December 1997.

119. H. Balakrishnan, V. Padmanabhan, S. Seshan, M. Stemm, E. Amir and R. Katz. "TCP Improvements for Heterogeneous Networks: The Daedalus Approach ," *Proceedings of the 35th Annual Allerton Conference on Communication, Control, and Computing*, Urbana, IL, October 1997.

120. H. Balakrishnan, S. Seshan, M. Stemm and R. Katz. "Analyzing Stability in Wide-Area Network Performance," *Proceedings of the ACM SIGMETRICS Conference*, Seattle, WA, June 1997.

121. H. Balakrishnan, V. Padmanabhan, S. Seshan and R. Katz. "A Comparison of Mechanisms for Improving TCP Performance over Wireless Links," *Proceedings of the ACM SIGCOMM Conference*, Stanford, CA, August 1996.

122. S. Narayanaswamy, S. Seshan et. al. "Application and Network Support for InfoPad," *IEEE Personal Communications Magazine*, April 1996.

123. H. Balakrishnan, S. Seshan, E. Amir and R. Katz. "Improving TCP/IP Performance in Wireless Networks," *Proceedings of the ACM MOBICOM Conference*, Berkeley, CA, November 1995. **Best Student Paper Award**.

124. E. Amir, H. Balakrishnan, S. Seshan and R. Katz. "*Efficient* TCP over Networks with Wireless Links," *Proceedings of the HotOS-V Workshop,* Orcas Island, WA, May 1995.

125. M. Le, F. Burghardt, S. Seshan and J. Rabaey. "InfoNet: the Networking Infrastructure of InfoPad," *Proceedings of the Compcon Conference*, San Fransisco, CA, March 1995.

126. S. Seshan, M. Le, F. Burghardt and J. Rabaey. "Software Architecture of the Infopad System," *Proceedings of the Mobidata Workshop on Mobile and Wireless Information Systems*, New Brunswick, NJ, November 1994.

127. A. Drapeau, K. Shirriff, J. Hartman, E. Miller, S. Seshan, R. Katz, K. Lutz, D. Patterson, E. Lee, P. Chen and G. Gibson. "RAID-II: A High-Bandwidth Network File Server," *Proceedings of the ISCA Conference*, Chicago, IL, April 1994.

128. B. Mah, S. Seshan, K. Keeton, R. Katz and D. Ferrari. "Providing Network Video Service to Mobile Clients," *Proceedings of the 4th Workshop on Workstation Operating Systems*, Napa, CA, October 1993.

129. S. Seshan and R. Katz. "Interfacing a High Performance Disk Array File Server to a Gigabit LAN," *Proceedings of the 18th Conference on Local Computer Networks*, Minneapolis, MN, September 1993.

130. K. Keeton, B. Mah, S. Seshan, R. Katz and D. Ferrari. "Providing Connection-Oriented Network Services to Mobile Hosts," *Proceedings of the USENIX Symposium on Mobile and Location-Independent Computing*, Cambridge, MA, August 1993.

131. P. Chen, E. Lee, A. Drapeau, K. Lutz, E. Miller, S. Seshan, K. Shirriff, D. Patterson and R. Katz. *"*Performance and Design Evaluation of the RAID-II Storage Server*," Proceedings of the International Parallel Processing Symposium Workshop on I/O in Parallel Computer Systems*, Newport Beach, CA, April 1993.

132. R. Katz, P. Chen, A. Drapeau, E. Lee, E. Miller, S. Seshan and D. Patterson. *"*RAID-II: Design and Implementation of a Large Scale Disk Array Controller*," Proceedings of the VLSI System Design Conference*, Seattle, WA, March 1993.

TECHNICAL REPORTS

133. A. Akella, A. Bharambe, S. Nath and Srinivasan Seshan. "Multi-Modal Network Protocols: Adapting to Highly Variable Operating Conditions", CMU Technical Report CMU-CS-02-170, Pittsburgh, PA, July 2002..

134. A.Akella and S.Chawla and S.Seshan, "Mechanisms for Internet Routing: A Study", *CMU CS Technical Report CMU-CS-02-163*, Pittsburgh, PA, July 2002.

135. M. Agrawal, A. Manjhi, N. Bansal and S. Seshan, "Improving Web Performance in Broadcast-Unicast Networks," *CMU CS Technical Report CMU-CS-02-159*, Pittsburgh, PA, July 2002

136. A. Akella, S. Seshan, S. Shenker and I. Stoica. "Exploring Congestion Control", *CMU SCS Technical Report Number CMU-CS-02-139*, Pittsburgh, PA, May 2002.

137. A. Akella, S. Seshan and H. Balakrishnan. "The Impact of False Sharing on Shared Congestion Management," CMU *SCS Technical Report Number CMU-CS-01-135*, Pittsburgh, PA, 2001.

138. H. Balakrishnan, V. Padmanabhan, S. Seshan, M. Stemm and R. Katz, "TCP Behavior of a Busy Internet Server: Analysis and Improvements", *Technical Report UCB/CSD-97-966*, University of California, Berkeley, CA, August 1997.

139. S. Seshan. "An Efficient Network Interface for the RAID-II File Server", *UCB Technical Report UCB/CSD 93/769*, Berkeley, CA, June 1993.

OTHER PUBLICATIONS

140. H. Balakrishnan and S. Seshan. "The Congestion Manager," *Internet Engineering Task Force*, RFC 3124, June 2001.

PATENTS AND INVENTION DISCLOSURES

141. S. Gollakota, F. Adib, D. Katabi, and S. Seshan. "Cross Technology Interference Cancellation". US20130028305 A1, July 31, 2011
142. A. Anand, A. Akella and S. Seshan. "Network Routing System Providing Increased Network Bandwidth". US20100254377 A1, April 3, 2009.
143. D. Schales, S. Seshan and M. Zohar, "Network Data Packet Classification and Demultiplexing", Patent US7200684 B1, April 13, 2000.

SOFTWARE ARTIFACTS

144. COLYSEUS – distributed architecture for multiplayer games and distributed versions of Quake II and Quake III
145. DONNYBROOK – peer-to-peer architecture for FPS games such as Quake III
146. SLYFI – Linux implementation of SlyFi, an identifier-free wireless link layer similar to 802.11.
147. IRISNET – Infrastructure for Internet-scale sensor-enriched services
148. MERCURY – Distributed Publish-Subscribe System
149. SPAND – Internet performance predictor software
150. CONGESTION MANAGER – Congestion control software for end-point systems
151. DAEDALUS PROTOCOL STACK – TCP & IP implementation for wireless/mobile hosts

II. EXTERNAL RECOGNITION

CITATIONS AND AWARDS

1. Best Paper Award, ACM CoNext, 2013.
2. Best Paper Award, ACM MobiSys, 2008.
3. Member of Defense Science Study Group, 2006-2007
4. Best Paper Award, IEEE BASENETS, 2004
5. Finmeccanica Chair in Computer Science, 2004
6. IBM Faculty Partnership Award (FPA), 2003
7. IBM Faculty Partnership Award (FPA), 2002
8. NSF CAREER Award, 2001
9. IBM Faculty Partnership Award (FPA), 2001
10. Best Student Paper Award, ACM/IEEE MOBICOM, 2000
11. Best Student Paper Award, ACM/IEEE MOBICOM, 1995
12. University of California Regents Scholar, T.J. Watson Scholar, M/A COM Scholar
13. Represented the U.S.A. at the International Physics Olympiad (Top 5 U.S. students)
14. Member of Tau Beta Pi and Eta Kappa Nu honor societies
15. Selected for EECS Honor's Program at University of California, Berkeley

INVITED TALKS

16. "Wireless Networking Research: A [Harsh] Critique", US-Japan Future Network Collaboration Workshop, December 2009.
17. "Dynamic, Secure & Mobile: Wireless Internetworking Research", NITRD Networking Research Challenges Workshop, August 2008.
18. "Networks at the Edge: Problems and Opportunities in Residential Wireless Networks", Stanford University, December 2007.
19. Networks at the Edge: Problems and Opportunities in Residential Wireless Networks", CISCO, December 2007.
20. "Networks at the Edge: Problems and Opportunities in Chaotic Wireless Deployments", University of Texas, Austin, December 2007.
21. "Towards Robust and Efficient Wireless Networks", STRATCOM, September 2007.
22. "Consumer Wireless Networks: Challenges and Opportunities", NSF Workshop on Mobile Wireless Technology and the Impacts on Future Internet, May 2007.
23. "Trends and Implications for Unlicensed Wireless Networks", NSF Wireless GENI Meeting, August 2005
24. "End-Point Based Routing Strategies for Improving Internet Performance", MIT, May 2005.
25. "Enabling Distributed Multiplayer Games", University of Washington, Seattle, January 2005.
26. "Understanding Wide-Area Internet Bottlenecks", University of Pennsylvania, April 2004.
27. "A Distributed Architecture for Interactive Multiplayer Games", IBM T.J. Watson Research Center, July 2004.
28. "Distributed Systems, Network Protocols & Applications Research Group", IBM T.J. Watson Research Center, June 2003.
29. "IrisNet", University of Washington, Seattle, April 2003.
30. "Making Virtual Worlds Real", IBM T.J. Watson Research Center, June 2002.
31. "Making Virtual Worlds Real", University of California at Los Angeles, June 2002.
32. "Marking Virtual Worlds Real", University of Washington, Seattle, June 2002.
33. "Congestion Manager", 16th IEEE Annual Computer Communications Workshop, Charlottesville, VA, September 2001.
34. "Adventures in Academia", IBM T.J.Watson Research Center, June 2001.
35. "The Future of Internet Applications: Enabling Network-Adaptive Design", Boston University, 2000.
36. "The Future of Internet Applications: Enabling Network-Adaptive Design", Carnegie Mellon University, 2000.
37. "The Future of Internet Applications: Enabling Network-Adaptive Design", Georgia Tech, 2000.

38. "The Future of Internet Applications: Enabling Network-Adaptive Design", University of Michigan, 2000.
39. "The Future of Internet Applications: Enabling Network-Adaptive Design", University of California at San Diego, 2000.
40. "The Future of Internet Applications: Enabling Network-Adaptive Design", Rice University, 2000.
41. "The Future of Internet Applications: Enabling Network-Adaptive Design", University of California at Santa Cruz, 2000.
42. "The Future of Internet Applications: Enabling Network-Adaptive Design", Rutgers, 2000.
43. "The Future of Internet Applications: Enabling Network-Adaptive Design", University of Pennsylvania, 2000.
44. "The Future of Internet Applications: Enabling Network-Adaptive Design", University of Southern California, 2000.
45. "Congestion Manager", 45th IETF, Oslo, Norway, July 1999.
46. "Congestion Manager", 44th IETF, Minneapolis, MN, March 1999.
47. "A Case Against Proxies", Proxy Based Networking vs. End-to-End Networking panel at ACM/IEEE MOBICOM, Dallas, TX, October 1998.
48. "What's wrong with the Web today?" AT&T, Florham Park, NJ, November 1998.
49. "Software Infrastructure of the Infopad System", SUNY Stonybrook, November 1994.

III.   PROFESSIONAL ACTIVITIES

JOURNALS

1. *Associate Editor*, ACM/IEEE Transactions on Networking, 2003-2005

CONFERENCE AND WORKSHOP COMMITTEES

1. *Technical Steering Committee,* ACM SIGCOMM (chair) 2014
2. *Program Committee,* Hot Topics in Networks (HotNets), 2014
3. *Program Committee*, USENIX NSDI, 2014
4. *Program Committee*, ACM SIGCOMM, 2014
5. *Program Committee Co-Chair*, ACM SIGCOMM, 2013
6. *Program Committee,* HotMobile 2013
7. *Program Committee,* Hot Topics in Networks (HotNets), 2012
8. *Program Committee Co-Chair*, ACM MobiSys, 2012
9. *Program Committee*, ACM SIGCOMM, 2012
10. *Program Committee*, USENIX NSDI, 2012
11. *Program Committee*, ACM SIGCOMM, 2011
12. *Program Committee*, ACM MobiSys, 2011
13. *Program Committee*, ACM/IEEE MOBICOM, 2010
14. *Program Committee*, ACM SIGCOMM, 2010
15. *Program Committee*, ACM MobiSys, 2010
16. *Program Committee*, USENIX NSDI, 2010
17. *Program Committee,* Hot Topics in Networks (HotNets), 2009
18. *Program Committee,* ACM SOSP 2009
19. *Program Committee,* ACM Mobicom 2008
20. *Program Committee*, USENIX NSDI, 2008
21. *Program Committee*, ACM SIGCOMM, 2007
22. *Program Committee Co-Chair*, USENIX Annual Technical Conference, 2007
23. *Program Committee*, USENIX NSDI, 2007
24. *Program Committee*, ACM SIGCOMM, 2006
25. *Program Committee*, IPTPS 2006
26. *Program Committee Co-Chair*, Hot Topics in Networks (HotNets), 2005
27. *Program Committee*, USENIX NSDI, 2005
28. *Program Committee*, ACM SIGCOMM, 2004
29. *Program Committee*, Internet Measurement Conference (IMC), 2004
30. *Program Committee*, IPTPS 2004
31. *Program Committee*, ACM/IEEE MOBICOM, 2004
32. *Program Committee*, NOSSDAV 2004
33. *Program Committee*, USENIX Annual Technical Conference, 2004
34. *Program Committee*, International World Wide Web Conference (WWW), 2004
35. *Student Poster Committee*, ACM SOSP 2004
36. *Program Committee*, IEEE ICNP 2003
37. *Program Committee*, NetGames, 2003
38. *Program Committee*, ACM SIGCOMM, 2003
39. *Program Committee,* ACM SIGMETRICS 2003
40. *Program Committee*, USENIX USITS, 2003
41. *Program Committee,* SPIE/ACM MMCN, 2003
42. *Tutorial Chair and Student Travel Grant Panel*, ACM SIGCOMM, 2002
43. *Program Committee,* Hot Topics in Networks (HotNets), 2002
44. *Program Committee,* Performance, 2002
45. *Program Committee,* Packet Video Workshop, 2002
46. *Program Committee,* ACM/IEEE MOBICOM, 2002
47. *Program Committee,* ACM/IEEE MOBICOM, 2001

48. *Program Committee*, Global Internet Symposium, 2000
49. *Program Committee*, ACM/IEEE MOBICOM, 2000
50. *Program Committee*, Global Internet Symposium, 1999
51. *Program Committee*, ACM/IEEE MOBICOM, 1999
52. *Program Committee*, IEEE WMCSA, 1999
53. *Program Committee*, ACM/IEEE MOBICOM, 1998
54. *Program Committee*, ICDCS, 1997
55. *Program Committee*, ACM/IEEE MOBICOM, 1997

NSF REVIEW PANELS

56. 2011 National Science Foundation CSR review panel
57. 2010 National Science Foundation CNS review panel
58. 2008 National Science Foundation CRI review panel
59. 2008 National Science Foundation CNS review panel
60. 2006 National Science Foundation CAREER review panel
61. 2005 National Science Foundation CNS review panel (1)
62. 2005 National Science Foundation CNS review panel (2)
63. 2001 National Science Foundation ITR review panel
64. 2000 National Science Foundation CNS review panel
65. 1999 National Science Foundation CNS review panel

CONSULTING

66. Intel Research Pittsburgh

LEGAL CONSULTING

67. Openwave v. RIM 10/2011 – 5/2012
68. Motorola v. Microsoft 5/2012 – 3/2013
69. Intellectual Ventures v. PNC Bank 8/2013 – 12/2013
70. Intellectual Ventures v. Erie Insurance 9/2014 – 9/2015
71. Core Wireless Licensing v. Apple 4/2015 - current

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

72. ACM

IV. TEACHING

COURSES TAUGHT AT CARNEGIE MELLON

- 15-744 Graduate Computer Networks Spring 2001
- 15-441 Undergraduate Computer Networks Fall 2001
- 15-744 Graduate Computer Networks Spring 2002
- 15-441 Undergraduate Computer Networks Fall 2002
- 15-744 Graduate Computer Networks Fall 2002
- 15-829/18-849B/95-811A/19-729A Internet-Scale Sensor Systems: Design and Policy Spring 2003
- 15-441 Undergraduate Computer Networks Spring 2004
- 15-744 Graduate Computer Networks Fall 2004
- 15-441 Undergraduate Computer Networks Spring 2005
- 15-441 Undergraduate Computer Networks Fall 2005
- 15-849 Wireless Networks Spring 2006
- 15-441 Undergraduate Computer Networks Fall 2006
- 15-849 Hot Topics in Networking Spring 2007
- 15-441 Undergraduate Computer Networks Fall 2007
- 15-744 Graduate Computer Networks Spring 2008
- 15-446 Distributed Systems Spring 2009
- 15-744 Graduate Computer Networks Fall 2009
- 15-441 Undergraduate Computer Networks Spring 2010
- 15-744 Graduate Computer Networks Fall 2010
- 15-849 Hot Topics in Networking Spring 2011
- 15-441 Undergraduate Computer Networks Fall 2011

COURSES TAUGHT OUTSIDE CARNEGIE MELLON

- *Massachusetts Institute of Technology*: Computer System Engineering - Recitations (6.033) - Spring 1999

LECTURE NOTES AND COURSE MATERIALS

- Available at:
  - http://www.cs.cmu.edu/~srini/15-849/S06
  - http://www.cs.cmu.edu/~srini/15-849/S07
  - http://www.cs.cmu.edu/~srini/15-849/S11
  - http://www.cs.cmu.edu/~srini/15-744/S01/
  - http://www.cs.cmu.edu/~srini/15-744/S02/
  - http://www.cs.cmu.edu/~srini/15-744/F02/
  - http://www.cs.cmu.edu/~srini/15-744/F04/
  - http://www.cs.cmu.edu/~srini/15-744/S08
  - http://www.cs.cmu.edu/~srini/15-744/F09
  - http://www.cs.cmu.edu/~srini/15-744/F10
  - http://www.cs.cmu.edu/~srini/15-441/F01/
  - http://www.cs.cmu.edu/~srini/15-441/F02/
  - http://www.cs.cmu.edu/~srini/15-441/S04/
  - http://www.cs.cmu.edu/~srini/15-441/S05/
  - http://www.cs.cmu.edu/~srini/15-441/F05/
  - http://www.cs.cmu.edu/~srini/15-441/F06/
  - http://www.cs.cmu.edu/~srini/15-441/F07/
  - http://www.cs.cmu.edu/~srini/15-441/S10/
  - http://www.cs.cmu.edu/~srini/15-441/F11/
  - http://www.cs.cmu.edu/~srini/15-446/S13/
  - http://www.cs.cmu.edu/~srini/15-446/S09/

V. STUDENT ADVISING

PHD STUDENTS

Srinivasa Aditya Akella
- Started: Fall 2000, Finished: Summer 2005
- Thesis: End-Point Based Routing Strategies for Improving Internet Performance
- Employer: University of Wisconsin (starting Fall 2006)

Suman Nath
- Started: Fall 2000, Finished: Summer 2005
- Thesis: Exploiting Redundancy for Robust Sensing
- Employer: Microsoft Research, Redmond (starting Fall 2005)

Jeffrey Pang
- Started: Fall 2003, Finished: Summer 2009
- Thesis: Quantifying and Mitigating Privacy Threats in Wireless Protocols and Services
- Employer: AT&T Research

Mukesh Agrawal
- Started: Fall 2000, Finished: Spring 2011
- Thesis: Coping with Change in Distributed Systems
- Employer: Google

Xi Liu
- Started: Fall 2006, Finished: Spring 2011
- Thesis: Maximizing Spatial Reuse In Indoor Environments
- Employer: Conviva

Dongsu Han
- Started: Fall 2007, Finished: Fall 2012
- Thesis: Supporting Long Term Evolution in an Internet Architecture
- Employer: KAIST

George Nychis
- Started: Fall 2007, Finished: Fall 2013
- Thesis: Towards Mitigating Heterogeneous Wireless Interference in Spectrum Bands with Unlicensed
- Employer: Meraki

Athula Balachandran
- Started: Fall 2009, Finished: Fall 2014
- Thesis: Large Scale Data Analytics of User Behavior for Improving Content Delivery
- Employer: Netflix

Richard Wang
- Started: Fall 2011

Matthew Mukerjee
- Started: Fall 2011

Ashwin Bharambe

- Started: Fall 2001, Expected completion: unknown
- Thesis: Scalable and Secure Architectures for Online Multiplayer Games
- Employer: Facebook

MS STUDENTS

Hemant Bhanoo
- Realistic Traffic Generators for Network Simulation, 2002
- Employer: Amazon

Xinyu Zhuang
- Thesis: Group Communication support for Multi-player Games
- Started: Fall 2006, Completed: Spring 2007

UNDERGRADUATE SENIOR THESES AND RESEARCH PROJECTS

Xinyu Zhuang
- Project Title: Group Communication support for Multi-player Games, Spring 2007

Yuxiang Liu
- Project Title: Managing and Monitoring Spectrum Usage in a Wireless Network, Spring 2006

Sameer Moidu
- Project Title: Evaluating Dense, Residential Deployments of 802.11, Fall 2004

Zachary R Anderson
- Thesis: Choosing Beacon Period for Improved Response Time for Wireless HTTP Clients, Spring 2004

Arvind Kannan
- Thesis: Scaling Properties of the Internet Graph, Spring 2003

Michael Piatek
- Project Title: The Engage Communications System, Spring 2002

Justin Weisz
- Thesis: Programming Tools for Internet Games, Summer 2002

Aditya Ganjam
- Thesis: Enabling Kernel processing for Web Proxies and Overlay Multicast, Spring 2002

M.S. OR PH.D. THESIS COMMITTEE SERVICE

Fahad Dogar
- PhD Thesis Proposal: 5/2010

Eugene Marinelli
- M.S. Thesis: Hyrax: Cloud Computing on Mobile Devices using MapReduce, 10/2009

Steven Okamoto
- PhD Thesis Proposal: Network Design for Partial Centralization in Multi-agent Systems, 5/2009

Hong Yan
- PhD Thesis Proposal: A Practical System for Centralized Network Control, 6/2010 (expected)

Glenn Judd
- PhD Thesis: Using Physical Layer Emulation to Understand and Improve Wireless Networks, 10/2006

Gesly George
- M.S. Thesis: A Flexible MAC Development Environment for Software Radios, 5/2006

Rajesh Balan
- PhD Thesis: Tactics-Based Remote Execution, 5/2006

Rahul Dhar
- M.S. Thesis: Towards an Adaptive MAC Layer: A CSMA/CA Scheme for the GNU Radio Platform, 5/2005

Hal Burch
- PhD Thesis: Measuring the Internet in situ, 3/2005

David Petrou
- PhD Thesis: Cluster scheduling for explicitly-speculative tasks, 12/2004

An-Cheng Huang
- PhD Thesis: Building Self-configuring Services Using Service-specific Knowledge, 12/2004

Jun Gao
- PhD Thesis: A Distributed and Scalable Peer-to-Peer Content Discovery System Supporting Complex Queries, 10/2004

Yang-hua Chu
- PhD Thesis: Enabling Live Internet Broadcasting using an Application Endpoint Architecture, 10/2004

Kay Sripanidkulchai
- PhD Thesis: Measurement-Driven Design of Peer-to-Peer Content Distribution Systems, 8/2004

Sanjay Rao
- PhD Thesis: Establishing the Viability of End System Multicast using a Systems Approach to Protocol Design, 8/2004

Jorjeta G. Jetcheva
- PhD Thesis: Adaptive Demand-Driven Multicast Routing in Multi-Hop Wireless Ad Hoc Networks, 4/2004

Ariton Xhafa
- PhD Thesis: Analysis of Handover Priority Schemes in Wireless Networks, 10/2003

Dapeng Wu
- PhD Thesis: Providing Quality-of-Service Guarantees in Wireless Networks, 8/2003

Wee-Seng Soh
- PhD Thesis: Mobility Prediction Based Resource Reservation and Restorability Enhancement in Cellular Networks, 8/2003

Yih-Chun Hu
- PhD Thesis: Enabling Secure High-Performance Wireless Ad Hoc Networking, 4/2003

Hen-I Yang
- M.S. Thesis: Service Discovery Systems, 5/2002

Carlos Olquin
- M.S. Thesis: A Service Brokerage Deployment Architecture, 10/2001

Jia-Cheng Hu
- M.S. Thesis: Conference Gateway Supporting Interoperability between SIP and H.323 Clients, 2/2001

Jiann-Min Ho
- M.S. Thesis: Conference Gateway Supporting Interoperability between SIP and H.323 Clients, 2/2001

Prashant Pradhan (SUNY, Stony Brook)
- PhD Title: A Scalable Architecture for High Performance, Safely Extensible Routers, 2000

VI.   UNIVERSITY SERVICE

SCHOOL AND DEPARTMENT SERVICE AND COMMITTEE WORK
1. Associate Department Head for Graduate Education, 2011-present
2. Graduate Admissions Chair, 2009
3. Graduate Admissions, 2007, 2008
4. Faculty Hiring Committee, 2002, 2003, 2004, 2007
5. Doctoral Review Committee. 2001-present
6. Dissertation Award Committee, 2000-01, 2001-02
7. Systems Seminar Series, 2001-04