Contact Information

Dept. of Computer Science and Engineering
University of Washington
Paul G. Allen Center, Box 352350
Seattle, WA 98195-2350

Web: http://djw.cs.washington.edu/
Email: djw@cs.washington.edu

Research Interests

Computer systems, with a focus on network systems (especially wireless, protocol design and Internet architecture), privacy and security, and mobile and ubiquitous computing.

Education

Massachusetts Institute of Technology (Cambridge, MA)
Doctor of Philosophy (Ph.D). in Computer Science, 10/98
Thesis: *Service Introduction in an Active Network*
Supervisors: Prof. David Tennenhouse and Prof. John Guttag

Master of Science (S.M.) in Computer Science, 9/94
Electrical Engineers (E.E.) degree, 2/95
Thesis: *An Interactive Programming System for Media Computation*
Supervisor: Prof. David Tennenhouse

University of Western Australia (Perth, Australia)
Bachelor of Engineering (B.E.) in Electrical Engineering (1st class Honors), 2/89

Professional Experience

University of Washington
Professor, Computer Science & Engineering, 9/11-present.
Associate Professor, Computer Science & Engineering, 9/04-9/11.
Assistant Professor, Computer Science & Engineering, 6/99-9/04.
Leading research in programmable networks, deduplication, ISP mapping, denial of service.

Intel Corporation
Strategic Advisor, Intel Labs Seattle, 9/09-2/11.
Director, Intel Labs Seattle, 7/06-9/09.
Led this 20 person, multi-million dollar research lab focused on ubiquitous computing.

Western Australian Telecommunications Research Institute (WATRI)
Sabbatical Visitor, 9/05-6/06.

Asta Networks, Inc.
Chief Architect, 6/00-12/00.
Co-founded startup making ISP and enterprise traffic management tools.

Massachusetts Institute of Technology
Research Scientist, Software Devices and Systems Group, 10/98-6/99.
Research Assistant, Software Devices and Systems Group, 9/94-10/98.
Pioneering research in programmable networks.

Research Assistant, Telemedia Networks and Systems Group, 9/91-9/94.
Pioneering research in computer systems for processing digital video.

Apple Computer Inc.
Intern, 6/93- 9/93.

QPSX Communications Inc.
Member of Technical Staff, 2/89- 8/91.
Helped to design IEEE 802.6-based Metropolitan Area Networks.

Awards & Honors

Sensys 2008 Best Demonstration Award for *"RFID Sensor Networks with the Intel WISP."*

Mobisys 2008 Best Paper Award for "*Improving Wireless Privacy with an Identifier-Free Link Layer Protocol*."

SIGCOMM 2007 Test-of-Time Award for "Towards an Active Network Architecture."

IEEE Communications Society Bennett Prize, "*Measuring ISP Topologies with Rocketfuel*," 2005.

Sloan Fellow, 2004.

USITS 2003 Best Student Paper Award for "*Scriptroute: A Public Internet Measurement Facility*."

NSF CAREER Award, 2002.

SIGCOMM 2002 Best Student Paper Award for "*Measuring ISP Topologies with Rocketfuel*."

SIGCOMM 2000 paper "*Practical Network Support for IP Traceback*" forwarded to IEEE/ACM Trans. on Networking for fast-track publication.

Hackett Fellowship awarded for graduate study. 1991-94.

Teaching

Developed and regularly taught networking courses at the undergraduate, graduate, and professional master's level. (Evaluation scores are the average of "adjusted line 3 and 4" unless noted.)

Autumn 1999- present, CSE590L/CSE590NL, Computer Networks Seminar, co-taught most academic quarters with T. Anderson.

Spring 2011, CSE461, Introduction to Computer Communication Networks, 3.9

Autumn 2010, CSEP561, PMP Network Systems, 4.8, **Dean's list**

Spring 2010, CSE561, Computer Communication Networks, 4.6

Autumn 2009, CSE461, Introduction to Computer Communication Networks, 4.1

Spring 2005, CSEP561, PMP Network Systems, co-taught with R. Perlman, 3.9 (1-4 combined)

Autumn 2004, CSE561, Computer Communication Networks, 4.15

Spring 2004, CSE590NS, Computer and Network Security, co-taught with R. Perlman, 3.7

Autumn 2003, CSE561, Computer Communication Networks, 4.3

Winter 2003, CSE561, Computer Communication Networks, 4.35

Autumn 2002, CSE/EE461, Introduction to Computer Communication Networks, 4.3

Spring 2002, CSE561, Computer Communication Networks, 4.6

Autumn 2001, CSE/EE461, Introduction to Computer Communication Networks, 4.68

Winter 2001, CSE/EE461, Introduction to Computer Communication Networks, 4.64

Spring 2000, CSE561, Computer Communication Networks, 3.62

Winter 2000, CSE/EE461, Introduction to Computer Communication Networks, 3.31

Autumn 1999, CSE590DW, Research in Networks and Distributed Systems.

Supervision (not including committees and collaborations)

Postdoctoral researchers

1. Aruna Balasubramanian, Ph.D. University of Massachusetts, 2011-present (CI Fellow)
2. Wenjun Hu, Ph.D., University of Cambridge, 2008-2010

PhD students

1. Maya Rodrig, "Improving Client Throughput with Multi-Hop Relaying in Wireless Mesh Networks," Ph.D. 2008. Co-advised with J. Zahorjan.
2. Ratul Mahajan, "Practical and Efficient Routing with Competing Interests," Ph.D. 2005. Co-advised with T. Anderson.
3. Neil Spring, "Efficient discovery of network topology and routing policy in the Internet," Ph.D. 2004. Co-advised with T. Anderson.
4. Robert Grimm, "System Support for Pervasive Applications," Ph.D. 2002. Co-advised with B. Bershad.

M.S. students

1. Richa Prasad, "Energy Debugging for RFID Sensor Networks," M.S. 2009. Co-advised with B. Greenstein.
2. Michael Buettner, "A Flexible Software Radio Transceiver for UHF RFID Experimentation," M.S. 2009. Co-advised with T. Anderson.
3. Daniel Halperin, "Practical Interference Cancellation for Wireless LANs," M.S. 2008. Co-advised with T. Anderson.
4. Ethan Katz-Bassett, "Delay-based IP Geolocation," M.S. 2005. Co-advised with Y. Chawathe.
5. Charles Reis, "An Empirical Characterization of Wireless Network Behavior," M.S. 2005. Co-advised with J. Zahorjan.
6. Ankur Jain, "Rapid and Efficient Detection of Anomalous Aggregates," M.S. 2005.
7. Stavan Parikh, "FORi: A Flexibly Overlay Routing Infrastructure," M.S. 2004.
8. Ratul Mahajan, "RED-PD: RED with Preferential Dropping," M.S. 2001. Co-advised with S.Floyd.
9. Andrew Whitaker, "Forwarding without loops in Icarus," M.S. 2001.
10. Neil Spring, "A Protocol Independent Technique for Eliminating Redundant Network Traffic," M.S. 2000.
11. David Ely, "ALPINE: A User-level Infrastructure for Network Protocol Development," M.S. 2000.

Publications

Books and Edited Volumes

1. A. Tanenbaum and D. Wetherall, "*Computer Networks*," 5th ed. (U.S. and Intl versions, with translations), Pearson Higher Education, Oct. 2010.
2. A. Agarwal, M. Corner, and D. Wetherall (eds.), "*Proc. of the 9th MobiSys*," ACM, June 2011.
3. P. Bahl, D. Wetherall, S. Savage, I. Stoica (eds.), "*Proc. of SIGCOMM 2008,"* ACM, Oct. 2008.
4. A. Vahdat and D. Wetherall (eds.), "*Proc. of the 2nd NSDI*," USENIX, May 2005.
5. A. Feldman, M. Zitterbart, J. Crowcroft and D. Wetherall (eds.), "*Proc. of SIGCOMM 2003,"* ACM, Oct. 2003.
6. L. Peterson and D. Wetherall (eds.), "*Proc. of HotNets-I,"* ACM Computer Communication Review, 33(1), Jan. 2003.
7. A. Campbell, D. Wetherall, and R. Yavatkar (eds.), "*Programmable Networks,"* Computer Networks, 38(3), Elsevier, Feb. 2002.
8. R. Yavatkar, A. Campbell, D. Wetherall (eds.), "*Proc. of OPENARCH 2001,"* IEEE, Aug. 2001.
9. K. Calvert, A. Campbell, A. Lazar, D. Wetherall and R. Yavatkar (eds.), "*Active and Programmable Networks,"* IEEE Journal on Selected Areas in Comms., 19(3), Mar. 2001.

Refereed Journal Articles

10. K. Edwards, R. Grinter, R. Mahajan, and D. Wetherall, "Advancing the State of Home Networking," *Communications of the ACM* 54(6):62-71, June 2011.
11. D. Zhu, J. Jung, D. Song, T. Kohno, and D. Wetherall, "TaintEraser: protecting sensitive data leaks using application-level taint tracking," *SIGOPS OS Review* 45(1):142-54, Jan. 2011.
12. Roy, Jandhyala, Smith, Wetherall, Otis, Chakraborty, Buettner, Yeager, You-Chang, Sample, "RFID: From Supply Chains to Sensor Nets," *Proc. of the IEEE*, 98(9):1583-1592, Oct. 2010.
13. M. Buettner and D. Wetherall, "A "Gen2" RFID Monitor based on the USRP," *ACM Computer Communication Review*, 40(3), June 2010.
14. X. Yang, D. Wetherall and T. Anderson, "TVA: A DoS-limiting Network Architecture," *IEEE/ACM Trans. on Networking*, 16(6), Dec. 2008.
15. Grimm, Davis, Lemar, MacBeth, Swanson, Anderson, Bershad, Borriello, Gribble, Wetherall, "System support for pervasive applications," *ACM Trans. on Computer Systems*, 22(4):421-486, Nov. 2004.
16. N. Spring, R. Mahajan, D. Wetherall and T. Anderson, "Measuring ISP Topologies with Rocketfuel," *IEEE/ACM Trans. on Networking,* 12(1):2-16, Feb. 2004. **Bennett Prize Paper.**
17. S. Savage, D. Wetherall, A. Karlin and T. Anderson, "Network support for IP traceback," *IEEE/ACM Trans. on Networking*, 9(3):226-37, June 2001.
18. S. Savage, N. Cardwell, D. Wetherall and T. Anderson, "TCP Congestion Control with a Misbehaving Receiver," *ACM Computer Communication Review*, 29(5):71-8, Oct. 1999.
19. D. Wetherall, U. Legedza and J. Guttag, "Introducing New Internet Services: Why and How," *IEEE Network Special Issue on Active and Programmable Networks*, 12(3):12-9, July 1998.
20. D. Tennenhouse, J. Smith, D. Sincoskie, D. Wetherall and G. Minden, "A Survey of Active Network Research," *IEEE Communications*, 35(1):117-29, Jan. 1997.
21. D. Tennenhouse and D. Wetherall, "Towards an Active Network Architecture," *ACM Computer Communication Review*, 26(2):5-17, Apr. 1996. **SIGCOMM Test-of-Time Award 2007.**

22. Lindblad, Wetherall, Stasior, Adam, Houh, Ismert, Bacher, Phillips,Tennenhouse, "ViewStation Applications: Implications for Network Traffic," *IEEE Jour. on Select. Areas of Comms.*, 13(5):768-78, Jun. 1995.
23. Tennenhouse, Adam, Carver, Houh, Ismert, Lindblad, Stasior, Wetherall, Bacher, Chang, "ViewStation: A software-oriented approach to media processing and distribution," *Multimedia Sys. Jour.*, 3(3):104-15, 1995.

Refereed Conference Publications

24. Hornyack, Han, Jung, Schechter, Wetherall, "These Aren't the Droids You're Looking For: Retrofitting Android to Protect Data from Imperious Applications," *ACM CCS*, Oct. 2011.
25. D. Halperin, S. Kandula, J. Padhye, P. Bahl, and D. Wetherall, "Augmenting data center networks with multi-gigabit wireless links," *SIGCOMM 2011*, Aug. 2011.
26. M. Ra, A. Sheth, L. Mummert, P. Pillai, D. Wetherall and R. Govindan, "Odessa: Enabling Interactive Perception Applications on Mobile Devices," *MobiSys 2011*, July 2011.
27. M. Buettner and D. Wetherall, "A Software Radio-based UHF RFID Reader for PHY/MAC Experimentation," *IEEE RFID 2011*, Apr. 2011.
28. M. Buettner, B. Greenstein and D. Wetherall, "Dewdrop: An Energy-Aware Runtime for Computational RFID," *NSDI 2011*, Apr. 2011.
29. D. Halperin, W. Hu, A. Sheth and D. Wetherall, "Predictable 802.11 Packet Delivery from Wireless Channel Measurements," *SIGCOMM 2010*, Sep. 2010.
30. A. Li, X. Yang and D. Wetherall, "SafeGuard: Safe Forwarding During Route Changes," *ACM CoNEXT 2009*, Dec. 2009.
31. M. Buettner, R. Prasad, M. Philipose and D. Wetherall, "Recognizing Daily Activities with RFID-based Sensors," *Ubicomp 2009*, Sep. 2009.
32. B. Raghavan, T. Kohno, A. Snoeren and D. Wetherall, "Enlisting ISPs to Improve Online Privacy: IP Address Mixing by Default," *9th PETS*, Aug. 2009.
33. Klasnja, Consolvo, Jung, Greenstein, LeGrand, Powledge, Wetherall, "'When I am on Wi-Fi, I am Fearless': Privacy Concerns & Practices in Everyday Wi-Fi Use," *CHI 2009*, May 2009.
34. A. Sheth, S. Seshan and D. Wetherall, "Geo-fencing: confining 802.11 coverage to physical boundaries," *Pervasive 2009*, May 2009.
35. J. Jung, A. Sheth, B. Greenstein, D. Wetherall, G. Maganis, T. Kohno, "Privacy Oracle: A System for Finding Application Leaks with Black Box Differential Testing," *ACM CCS*, Oct. 2008.
36. D. Halperin, T. Anderson and D. Wetherall, "Taking the Sting out of Carrier Sense: Interference cancellation for wireless LANs," *MOBICOM 2008*, CA, Sep. 2008.
37. M. Buettner and D. Wetherall, "An Empirical Study of UHF RFID Performance," *MOBICOM 2008*, Sep. 2008.
38. B. Greenstein, D. McCoy, J. Pang, T. Kohno, S. Seshan and D. Wetherall, "Improving Wireless Privacy with an Identifier-Free Link Layer Protocol," *MobiSys 2008*, June 2008. **Best Paper.**
39. E. Katz-Bassett, H. Madhyastha, J. John, A. Krishnamurthy, D. Wetherall and T. Anderson, "Studying Black Holes in the Internet with Hubble," *NSDI 2008*, Apr., 2008.
40. S. Nedevschi, L. Popa, G. Iannaccone, S. Ratnasamy and D. Wetherall, "Reducing Network Energy Consumption via Sleeping and Rate-Adaptation," *NSDI 2008*, Apr., 2008.
41. X. Liu, A. Li, X. Yang and D. Wetherall, "Passport: Secure and Adoptable Source Authentication," *NSDI 2008*, Apr., 2008.
42. D. Yeager, R. Prasad, D. Wetherall, P. Powledge and J.R. Smith, "Wirelessly-Charged UHF Tags for Sensor Data Collection," *IEEE RFID*, Apr. 2008.

43. J. Pang, B. Greenstein, R. Gummadi, S. Seshan and D. Wetherall, "802.11 User Fingerprinting," *MOBICOM 2007*, Sep. 2007.
44. R. Gummadi, D. Wetherall, B. Greenstein and S. Seshan, "Understanding and Mitigating the Impact of RF Interference on 802.11 Networks," *SIGCOMM 2007*, Sep. 2007.
45. R. Mahajan, D. Wetherall, and T. Anderson, "Mutually Controlled Routing with Independent ISPs," *NSDI 2007*, Apr. 2007.
46. E. Katz-Bassett, J. John, A. Krishnamurthy, D. Wetherall, T. Anderson and Y. Chawathe, "Towards IP Geolocation using Delay and Topology Measurements," *IMC 2006*, Oct. 2006.
47. R. Mahajan, M Rodrig, D. Wetherall and J. Zahorjan, "Analyzing the MAC-level behavior of Wireless Networks in the Wild," *SIGCOMM 2006*, Sep. 2006.
48. C. Reis, R. Mahajan, M. Rodrig, D. Wetherall and J. Zahorjan, "Measurement-based Models of Delivery and Interference in Static Wireless Networks," *SIGCOMM 2006*, Sep. 2006.
49. X. Yang and D. Wetherall, "Source Selectable Path Diversity via Routing Deflections," *SIGCOMM 2006*, Sep. 2006.
50. A. Nicholson, Y. Chawathe, M. Chen, B. Noble and D. Wetherall, "Improved Access Point Selection," *MobiSys'06*, June 2006.
51. X. Yang, D. Wetherall and T. Anderson, "TVA: A DoS-limiting Network Architecture," *SIGCOMM 2005*, Aug. 2005.
52. R. Mahajan, D. Wetherall, and T. Anderson, "Negotiation-Based Routing Between Neighboring ISPs," *NSDI 2005,* Apr. 2005.
53. R. Mahajan, M. Rodrig, D. Wetherall, and J. Zahorjan, "Sustaining Cooperation in Multi-hop Wireless Networks," *NSDI 2005*, Apr. 2005.
54. K. Gummadi, H. Madhyastha, S. Gribble, H. Levy, and D Wetherall, "Improving the Reliability of Internet Paths with One-hop Source Routing," *OSDI 2004*, Dec. 2004.
55. R. Mahajan, N. Spring, D. Wetherall and T. Anderson, "User-level Internet Path Diagnosis," *SOSP'03*, Oct. 2003.
56. P. Patel, A. Whitaker, D. Wetherall, J. Lepreau, and T. Stack "Upgrading Transport Protocols with Untrusted Mobile Code," *SOSP'03,* Oct. 2003.
57. N. Spring, D. Wetherall and T. Anderson, "Scriptroute: A Public Internet Measurement Facility," *USITS'03*, Mar. 2003. **Best Student Paper**.
58. S. Jain, R. Mahajan and D. Wetherall, "A Study of the Performance Potential of DHT-based Overlays," *USITS'03*, Mar. 2003.
59. N. Spring, R. Mahajan and D. Wetherall, "Measuring ISP Topologies with Rocketfuel," *SIGCOMM 2002*, Aug. 2002. **Best Student Paper**.
60. R. Mahajan, D. Wetherall and T. Anderson, "Understanding BGP Misconfiguration," *SIGCOMM 2002*, Aug. 2002.
61. A. Whitaker and D. Wetherall, "Forwarding Without Loops in Icarus," *5th IEEE OPENARCH*, June 2002.
62. R. Mahajan, S. Floyd and D. Wetherall, "Controlling High-Bandwidth Flows at the Congested Router," *9th ICNP*, Nov. 2001.
63. D. Ely, N. Spring, D. Wetherall, S. Savage and T. Anderson, "Robust Congestion Signaling," *9th ICNP*, Nov. 2001.

64. D. Ely, S. Savage and D. Wetherall, "Alpine: A User-Level Infrastructure for Network Protocol Development," *USITS'01,* Mar. 2001.
65. S. Savage, D. Wetherall, A. Karlin and T. Anderson, "Practical Network Support for IP Traceback," *SIGCOMM 2000*, Aug. 2000.
66. N. Spring and D. Wetherall, "A Protocol Independent Technique for Eliminating Redundant Network Traffic," *SIGCOMM 2000*, Aug. 2000.
67. D. Wetherall, "Active network vision and reality: lessons from a capsule-based system," *SOSP'99*, Dec. 1999.
68. V. Bose, D. Wetherall and J. Guttag, "Next Century Challenges: RadioActive Networks," *MOBICOM'99*, Aug. 1999.
69. J. Santos and D. Wetherall, "Increasing Effective Link Bandwidth by Suppressing Replicated Data," *USENIX'98*, June 1998.
70. D. Wetherall, J. Guttag and D. Tennenhouse, "ANTS: A Toolkit for Building and Deploying Network Protocols," *1st IEEE OPENARCH*, Apr. 1998.
71. U. Legedza, D. Wetherall and J. Guttag, "Improving the Performance of Distributed Applications Using Active Networks," *IEEE INFOCOM'98*, Apr. 1998.
72. D. Tennenhouse and D. Wetherall, "Towards an Active Network Architecture," *Multimedia Computing and Networking*, Jan. 1996.
73. C. Lindblad, D. Wetherall and D. Tennenhouse, "The VuSystem: A Programming System for Visual Processing of Digital Video," *ACM Multimedia*, Oct. 1994.
74. Tennenhouse, Adam, Carver, Houh, Ismert, Lindblad, Stasior, Wetherall, Bacher, Chang, "A Software-Oriented Approach to the Design of Media Processing Environments," *Intl. Conf. on Multimedia Comp. & Sys.*, 1994.
75. H. Houh, C. Lindblad and D. Wetherall, "Active Pages: Intelligent Nodes on the World Wide Web," *1st Intl. World Wide Web Conference*, Geneva, May 1994.

Refereed Workshop Publications

76. X. Wang, D. Choffnes, P. Kelley, B. Greenstein, and D. Wetherall, "Measuring and Predicting Web Login Safety," *SIGCOMM 2011 W-MUST*, Aug 2011.
77. D. Wetherall, D. Choffnes, B. Greenstein, S. Han, P. Hornyack, J. Jung, S. Schechter, and X. Wang, "Privacy Revelations for Web and Mobile Apps," *HotOS 2011*, May 2011.
78. G. Maganis, J. Jung, T. Kohno, A. Sheth and D. Wetherall, "Sensor Tricorder: What does that sensor know about me?"*HotMobile 2011*, Mar. 2011.
79. D. Halperin, B. Greenstein, A. Sheth, and D. Wetherall, "Demystifying 802.11n Power Consumption," *HotPower '10*, Oct. 2010.
80. P. Gilbert, L. Cox, J. Jung, and D. Wetherall, "Towards Trustworthy Mobile Sensing," *HotMobile 2010*, Feb. 2010.
81. M. Buettner, B. Greenstein, A. Sample, J.R. Smith and D. Wetherall, "Revisiting Smart Dust with RFID Sensor Networks," *7th HotNets*, Oct. 2008.
82. D. Halperin, J. Ammer, T. Anderson and D. Wetherall, "Interference cancellation: better receivers for a new wireless MAC," *6th HotNets*, Nov. 2007.
83. J. Pang, B. Greenstein, D. McCoy, S. Seshan and D. Wetherall, "Tryst: The Case for Confidential Service Discovery," *6th HotNets*, Nov. 2007.
84. Greenstein, Gummadi, Pang, Chen, Kohno, Seshan and Wetherall, "Can Ferris Bueller Still Have His Day Off? Protecting Privacy in an Era of Wireless Devices," *11th HotOS*, May 2007.

85. X. Liu, X. Yang, D. Wetherall and T. Anderson, "Efficient and Secure Source Authentication with Packet Passports," *SRUTI'06*, Jul. 2006
86. M. Rodrig, C. Reis, R. Mahajan, D. Wetherall and J. Zahorjan, "Measurement-based Characterization of 802.11 in a Hotspot Setting," *SIGCOMM 2005 E-WIND*, Aug. 2005.
87. R. Mahajan, D. Wetherall, and T. Anderson, "Towards Coordinated Interdomain Traffic Engineering," *3rd HotNets*, Nov. 2004.
88. A. Jain, J. Hellerstein, S. Ratnasamy and D. Wetherall, "A Wakeup Call for Internet Monitoring Systems: The Case for Distributed Triggers," *3rd HotNets*, Nov. 2004.
89. R. Mahajan, M. Rodrig, D. Wetherall and J. Zahorjan, "Experiences Applying Game Theory to System Design," SIGCOMM Workshop on Practice & Theory of Incentives in Networked Systems (PINS), August 2004.
90. T. Anderson, T. Roscoe and D. Wetherall, "Preventing Internet Denial-of-Service with Capabilities," *2nd HotNets,* Nov. 2003.
91. N. Spring, D. Wetherall and T. Anderson, "Reverse-Engineering the Internet," *2nd HotNets*, Nov. 2003.
92. P. Patel, A. Whitaker, D. Wetherall and J. Lepreau, "TCP Meets Mobile Code," *9th HotOS*, May 2003.
93. T. Anderson, S. Shenker, I. Stoica and D. Wetherall, "Design Guidelines for Robust Internet Protocols," *1st HotNets*, Oct. 2002.
94. R. Mahajan, N. Spring, D. Wetherall and T. Anderson, "Inferring Link Weights Using End-to-End Measurements," *2nd IMW'02*, Nov. 2002.
95. Grimm, Davis, Lemar, MacBeth, Swanson, Anderson, Bershad, Borriello, Gribble, Wetherall, "System-level programming abstractions for ubiquitous computing," *UbiTools'01*, Sep. 2001.
96. Grimm, Davis, Hendrickson, Lemar, MacBeth, Swanson, Anderson, Bershad, Borriello, Gribble, and Wetherall, "Systems Directions for Pervasive Computing," *8th HotOS*, May 2001.
97. R. Grimm, T. Anderson, B. Bershad and D. Wetherall, "A system architecture for pervasive computing," *9th SIGOPS European Workshop*, Sep. 2000.
98. D. Wetherall and D. Tennenhouse, "The ACTIVE IP Option," *7th SIGOPS European Workshop*, Sep. 1996.
99. D. Wetherall and C. Lindblad, "Extending Tcl for Dynamic Object-Oriented Programming," *Tcl/Tk Workshop*, Jul. 1995.
100. Lindblad, Wetherall, Stasior, Phillips, Bacher, Adam, Houh, Ismert, Tennenhouse, "ViewStation Applications: intelligent video processing over a broadband local area network," *USENIX Symp. on High-Speed Netw.*, 1994.

Other Un-refereed Publications (not duplicating the above)

101. M. Buettner, and D. Wetherall, "Implementing the Gen 2 MAC on the Intel WISP," *Wirelessly Powered Sensors, Systems, and Computational RFID,* Springer, 2011.
102. R. Prasad, M. Buettner, B. Greenstein, and D. Wetherall, "WISP Energy Debugging," *Wirelessly Powered Sensors, Systems, and Computational RFID,* Springer, 2011.
103. D. Halperin, W. Hu, A. Sheth and D. Wetherall, "Tool Release: Gathering 802.11n Traces with Channel State Information," *ACM Computer Communication Review*, 41(1), pp53-4, Jan 2011.
104. D. Halperin, W. Hu, A. Sheth and D. Wetherall, "802.11 with Multiple Antennas for Dummies," *ACM Computer Communication Review*, 40(1), pp19-25, Jan 2010.

105. M. Buettner and D. Wetherall, "A Flexible Software Radio Transceiver for UHF RFID Experimentation," Technical Report UW-CSE-09-10-02, University of Washington, Oct. 2009.
106. D. Wetherall, "10 Networking Papers: readings for protocol design," *ACM Computer Communication Review*, 36(3):77-8, Jul. 2006.
107. A. Jain and D. Wetherall, "Rapid and Efficient Detection of Distributed Anomalous Aggregates," Technical Report UW-CSE-07-08-02, May 2005.
108. J. Hellerstein, V. Paxson, L. Peterson, T. Roscoe, S. Shenker and D. Wetherall, "The Network Oracle," *IEEE Data Engineering Bulletin*, 28(1):3-10, 2005.
109. N. Spring, M. Dontcheva, M. Rodrig and D. Wetherall, "How to Resolve IP Aliases," Technical Report UW-CSE-04-05-04, University of Washington, May 2004.
110. D. Wetherall and T. Anderson, "Teaching by Layers Considered Harmful for Network Education," *SIGCOMM 2nd NetEd*, Sep. 2003.
111. N. Spring, D. Wetherall and D. Ely, "Robust Explicit Congestion Notification (ECN) Signaling with Nonces," *IETF Request for Comments (RFC 3540)*, Jun. 2003.
112. S. Jain, R. Mahajan, D. Wetherall and G. Borriello, "Scalable Self-Organizing Overlays," Technical Report UW-CSE-02-06-04, University of Washington, Jun. 2002.
113. M. Hicks, J. Moore, D. Wetherall and S. Nettles, "Experiences with Capsule-based Active Networking," *DARPA Active Network Conf. and Exposition (DANCE'02)*, May 2002.
114. D. Wetherall, J. Guttag and D. Tennenhouse, "ANTS: Network Services Without the Red Tape," *IEEE Computer*, 32(4):42-9, Apr. 1999.

Software Releases

1. 802.11n channel measurement tool, for detailed RF traces. Lead: Dan Halperin. 2010.
2. USRP-based EPC Gen 2 RFID Monitor and Reader. Lead: Michael Buettner. 2009.
3. SlyFi, Linux implementation of an identifier-free link layer. Lead: Jeff Pang. 2008.
4. STP (Self-spreading Transport Protocols). Lead: Parveen Patel. 2005.
5. Tulip, tools for diagnosing performance faults on Internet paths. Lead: Ratul Mahajan. 2003.
6. Scriptroute, a deployed Internet measurement platform. Lead: Neil Spring. 2002.
7. Rocketfuel, ISP maps and raw traces. Lead: Neil Spring. 2002.
8. ECN Nonce (robust congestion signaling) kernel update for Linux. Lead: Neil Spring. 2002.
9. ALPINE (user-level networking infrastructure). Lead: David Ely. 2000.
10. ANTS 2.0, an active network toolkit. Lead: Andrew Whitaker. 2001.
11. VuSystem, a multimedia processing system. Lead: Chris Lindblad. 1997.
12. Object TCL, an object-oriented extension to the TCL language. Lead: David Wetherall. 1995.

Patents

1. D. Wetherall, S. Savage and T. Anderson, "Detecting and preventing undesirable network traffic from being sourced out of a network domain," U.S. patent 7,970,886, issued Jun. 2011.
2. T. Anderson, S. Savage and D. Wetherall, "Distributed service level management for network traffic," U.S. patent 7,475,141, issued Jan. 2009.

3. D. Wetherall, S. Savage and T. Anderson, "Network traffic regulation including consistency-based detection and filtering of packets with spoof source addresses," U.S. patent 7,444,404, issued Oct. 2008.
4. D. Wetherall, T. Anderson and S. Savage, "Distributed solution for regulating network traffic," U.S. patent 7,058,015, issued June 2006.
5. D. Wetherall, S. Savage and T. Anderson, "Progressive and distributed regulation of selected network traffic destined for a network node," U.S. patent 6,801,503, issued Oct. 2004.

Grants

1. PI, "Reflecting Site Behaviors to Browser Users," Google Research Award, 2011-2012, $75K.
2. PI, "NeTS-Small: RFID-based Networking," NSF CISE CNS (NeTS), #1016487, 2010-2013, $450K.
3. PI (with J. Landay, U. Washington), "TC-Small: Informing Users of their Privacy in Practice," NSF CISE CNS (Trustworthy Computing), #0917341, 2009-2012, $500K.
4. Co-PI (with S. Seshan, CMU and T. Kohno, U. Washington), "NeTS-FIND: Protecting User Privacy in a Network with Ubiquitous Computing Devices," NSF CISE CNS (NeTS), #0722004, 2007-2010, $1M of $1.5M.
5. Co-PI (with T. Anderson, U. Washington) "NeTS-NR: A Shared Facility for Internet Reverse Engineering," NSF CISE CNS (NeTS), #0435065, 2004-2007, $1M.
6. PI (with T. Anderson, U. Washington) "Controlling Denial-of-Service with Capabilities," NSF CISE (Cyber Trust), #0430304, 2004-2007, $330K.
7. PI (with T. Anderson, U. Washington) "ISP Negotiation for Coordinated Traffic Engineering," Cisco University Research Program, 2004-2005, $83K.
8. PI, Research Fellowship, Sloan Foundation, 2004-2006, $40K
9. PI (with J. Lepreau, Utah), "Collaborative Research: Rapid Evolution of Transport Protocols," NSF CISE ANIR (Special Projects), #0338837, 2003-2006, $410K of $1.2M.
10. PI, "Dependable Network Communication," NSF CISE ANIR (CAREER), #0133495, 2002-2007, $360K.
11. PI (with T. Anderson, U. Washington), Intel Equipment Grant, $50K, June 2002.
12. Co-PI (with T. Anderson, U. Washington), "Enforceable Network Protocols," DARPA ITO (Fault Tolerant Networks), #F30602-00-2-0565, 2000-2003, $1.4M
13. PI, "Rendezvous: Self-Organizing Services in an Active Network," DARPA ITO (Active Networks), #F30602-98-1-0205, 2000-2003, $1.2M
14. Co-PI (with Borriello and T. Anderson (U. Washington), and Russell, Want and Petersen (Xerox)), "The Portolano Expedition," DARPA ITO (Expeditions), #N66001-99-2-892401, 1999-2002, authorized for $16.3M, funded to $1.5M.

Invited Talks (not including conference or meeting presentations)

MIT, "Realizing RFID Sensor Networks with the WISP," Dec. 2010.

Telefonica, "Realizing RFID Sensor Networks with the Intel WISP," June 2010.

CMU, "Realizing RFID Sensor Networks with the Intel WISP," June 2009.

Duke University, "Realizing RFID Sensor Networks with the Intel WISP," Nov. 2008.

Cisco, "Power Management for Networks to Reduce Energy Consumption," Feb. 2008.

UC Irvine, "Improved Communication Protocols for Better Wireless Privacy," Jan. 2008.

Harvard University, "Protecting the Privacy of the Users of Wireless Devices," Dec. 2007.

MIT, "Protecting the Privacy of the Users of Wireless Devices," Dec. 2007.

Université Pierre et Marie Curie, "Protecting the Privacy of the Users of Wireless Devices," Thomson Paris and LIP6/CNRS, Nov. 2007.

Western Australian Telecommunications Research Institute (WATRI), "Efficient Internet Routing with Independent Providers," Apr. 2006.

National ICT Australia, "Efficient Internet Routing with Independent Providers," Dec. 2005.

Stanford University, "'User-Level' Internet Path Diagnosis with Tulip," Aug. 2003.

UC Berkeley, "'User-Level' Internet Path Diagnosis with Tulip," Aug. 2003.

Microsoft Research, "Towards More Error-Tolerant Network Protocols," Mar. 2002.

Princeton University, Towards More Error-Tolerant Network Protocols," Apr. 2002.

Stanford University, "A Measurement Study of BGP Misconfiguration," Nov. 2001.

MIT, "Robust Congestion Signaling," June 2001.

Professional Service (not including sundry reviews)

2012: SIGCOMM 2012 PC member

2011: SIGCOMM 2011 "Measurement Up the Stack" Workshop Co-organizer & PC Co-chair
SIGCOMM 2011 Education Workshop Co-organizer
IMC 2011 PC member
CCR Area Editor
MobiSys 2011 PC Co-chair

2010: MobiSys 2010 PC member
CCR Area Editor
SIGCOMM Workshop on Home Networks PC member

2009: MOBICOM 2009 PC member
Co-organizer, UW/MSR Summer Institute (`Untangling the Technological Knot in Homes')
NSDI 2010 PC member

2008: SIGCOMM 2008 General Co-chair
SIGCOMM 2008 PC member
NSDI 2008 PC member (light)

2007: INRIA Theme Com B external evaluator
SIGCOMM 2007 PC member
MobiSys 2007 PC member
HotOS XI PC member
PAM 2007 PC member
PerCom 2007 PC member

2005: NSDI 2005 PC Co-chair
SIGCOMM 2005 E-WIND Workshop PC member

2004: IMC PC member
HotNets Steering Committee member
NSF CISE panel reviewer

2003: SIGCOMM 2003 PC Co-chair

HotNets Steering Committee member

2002: HotNets Co-founder and Steering Committee member
HotNets PC Co-chair
OSDI 2002 PC member
SIGCOMM 2002 PC member
OPENARCH 2002 PC member
Computer Networks, Guest Editor ("Programmable Networks")

2001: OPENARCH 2001 PC Co-chair
IEEE JSAC, Guest Editor ("Active and Programmable Networks")

2000: SIGCOMM 2000 PC member

1999: SIGCOMM 1999 PC member
1st Workshop on Internet Applications (WIAPP), PC member

Personal

Australian citizen.