AZER BESTAVROS

111 Cummington Street Boston, MA 02215 617-353-9726 Forty Six Rice Road Wayland, MA 01778 508-647-2255

Http://www.cs.bu.edu/faculty/best Email: bestavros@cs.bu.edu Fascimile: 617-353-6457

EDUCATION

Ph.D. Harvard University, Division of Applied Sciences, in Computer Science.

S.M. Harvard University, Division of Applied Sciences, in Computer Science.

M.Sc. Alexandria University, Egypt, in Computer Science and Automatic Control.

B.Sc. Alexandria University, Egypt, summa cum laude in Computer Engineering.

June 1984

June 1984

ACADEMIC EXPERIENCE

Boston University

FOUNDING DIRECTOR Hariri Institute for Computing and Computational S & E 12/10 - present Professor. Department of Computer Science 09/07 - present 09/03 - 08/2007Professor and Chairman Department of Computer Science Associate Professor and Chairman Department of Computer Science 09/00 - 08/200309/98 - 08/2000Associate Professor Department of Computer Science Assistant Professor Department of Computer Science 09/91 - 08/1998

Research: Networking; Internet/Web Protocols and Services; and Real-Time Systems. Projects: Cloud computing architectures; Network science and algorithmics; Economics-inspired networking/cloud services; Security of system/network control planes; Internet/Web measurement and characterization; Web caching and Content Distribution Networks; Scalable streaming media delivery; End-to-end QoS management; Resource management in mobile ad-hoc networks; Virtualization and programming support for embedded sensor networks; Formal verification of Internet/Web protocols; Compositional analysis of Cyber-Physical Systems; Statistical scheduling and load-shedding protocols for distributed systems; Concurrency management in real-time databases. Teaching: Introduction to CS; Computer architecture; Parallel computing; Computing systems fundamentals; Distributed systems; Real-time systems; Internet architecture and protocols; Sensor networks.

Harvard University

RESEARCH FELLOW Department of Computer Science 09/87 - 09/1991TEACHING FELLOW Department of Computer Science 09/88 - 09/1991RESEARCH ASSISTANT Robotics Laboratory 06/88 - 09/1988

Research: Formal modeling and verification of embedded real-time systems. Projects: Implementation of motion control API for 6-DOF robot; Compiler optimizations for massively parallel Monte-Carlo simulations. Teaching: Programming languages and compilers; VLSI; Parallel computing models, languages, and environments.

Alexandria University

RESEARCH ASSISTANT

Department of Computer Science 09/84 - 06/1987TEACHING ASSISTANT

Department of Computer Science 09/84 - 06/1987INSTRUCTOR

Center for Scientific Computing 09/85 - 06/1986

Research: Fault-tolerant distributed systems. Teaching: Information and control theory; Networking; Computer architecture; Probability and Statistics.

VISITING AND AFFILIATED APPOINTMENTS

Founding Faculty, Center for Reliable Information Systems & Cyber Security, BU RISCS promotes research and education on trustworthy systems and on information assurance.	09/06 – $present$
Faculty Affiliate, Center for Finance, Law & Policy, BU CFLP promotes research on regulatory issues of global financial systems and networks.	09/13 - present
Faculty Affiliate, Division of Systems Engineering, School of Engineering, BU The SE division promotes research on information, decision, and control sciences.	09/08 – $present$
Faculty Member, The Center for Information and Systems Engineering, BU CISE promotes interdisciplinary research involving systems engineering methodologies.	09/02 – $present$
Faculty Member, Center of Computational Sciences, BU CCS promotes collaborative research and education in computational sciences.	09/92 – $present$
Visiting Professor, Microsoft Innovation Laboratories, CMIC, Cairo, Egypt Research on collaborative ad-hoc networked information and retrieval systems.	Fall 2008
Visiting Professor, Institut Eurécom, Sophia-Antipolis, France Research on networking protocols for scalable P2P and ad-hoc content distribution.	Fall 2008
Visiting Professor, Telefonica Research Laboratories, Barcelona, Spain Research on distributed systems, P2P, and content distribution networks.	Fall 2008
Visiting Professor, BBN Technologies, Cambridge, Massachusetts Research on information security, advanced networking, and distributed systems.	Fall 2007
Visiting Professor, Harvard University, Cambridge, Massachusetts Research on scalable content service and distribution.	Fall 1999

Professional Experience

Advisory Board Member, The Cloud Computing Caucus, Washington, DC Inform and educate lawmakers and the public about cloud computing and other IT issues.	03/14 - present
Consultant, Patent and Intellectual Property Litigations, Various Law Firms Retained as expert witness in patent infringement and validity litigations and trials.	04/00 – $present$
Consultant, Raytheon BBN Technologies, Cambridge, MA Verification of safety and security of distributed systems.	02/08 – $present$
Consultant, Sycamore Networks, Chelmsford, MA Edge caching services for mobile and wireless networks.	07/08 - 06/2010
Advisory Board Member, BU Office of Technology Development, Boston, MA Assisting OTD in technology evaluation of prospective investment opportunities.	04/00 - 12/2005
Technical Advisory Board Member, Pivia Inc., Cupertino, CA Reviewing Pivia's technical and strategic directions in dynamic Web caching.	10/00 - 12/2003
Technical Advisory Board Member, Quarry Technologies, Inc., Cambridge, MA Reviewing Quarry's lineup of high-end enterprise networking solutions.	04/00 - 12/2003
Technical Advisory Board Member, PeopleStreet.com Inc., Cambridge, MA Reviewing PeopleStreet technical and strategic directions in active contact management.	08/00 - 02/2002
Consultant, Adero Inc., Charlestown, MA Reviewing Adero's load measurement architecture.	03/00 - 09/2000
Senior Scientific Adviser, Allaire Corporation, Cambridge, MA Reviewing architectures for profiling and personalization in scalable application servers.	03/00 - 04/2001
Consultant, Network Appliance (formerly WebManage Inc.), Sunnyvale, CA Reviewing NTAP NetCache content distribution architecture.	10/99 - 12/2000
Co-Founder/Principal Officer, Commonwealth Network Technologies, Boston, MA Middleware support for scalability, load-balancing, and QoS on clustered servers.	01/98 - 10/1999
Technology Consultant , Bowne Internet Solutions, Boston, MA Reviewing proposed designs and architectures for on-line banking and e-commerce applications.	06/98 - 02/2000
Chief Technology Officer, Open Sesame, Inc. Boston, MA Personalization Solutions for 1-1 E-commerce.	01/98 - 05/1998
Software Technology Consultant, Charles River Analytics, Cambridge, MA Reviewing the design of scalable personalization and push-caching services for the Web.	01/97 - 01/1998

02/2004 08/1999

08/1999

Member of Technical Staff (MTS), AT&T Bell Laboratories, N.J. Designed, analyzed and simulated new RAID architectures using Rabin's IDA algorithm.	06/89 - 09/1989
Consultant, World Health Organization, Eastern Mediterranean Regional Office Laid out and supervised the design of database systems for the WHO libraries.	01/87 - 09/1987
Consultant, Chemonics International, Washington D.C. (Cairo office) Evaluated computer monitoring systems and training courses for USAID projects in Egypt.	06/85 - 01/1987
System Administrator, Awad & Partners Architectural Firm, Alexandria, Egypt Designed and implemented site control, cost-time estimation/scheduling, and CAD software.	06/84 - 06/1987
Investigator, The Institute for Oceanographical Research, Alexandria, Egypt Assessed remote sensing and data acquisition embedded systems for coastal erosion research.	06/85 - 06/1986
Instructional Consultant, Maritime Transport Academy, Alexandria, Egypt Developed and taught a 2-course series on computing for maritime engineers.	09/84 - 06/1985
System Programmer, Arabic Software Inc., Alexandria, Egypt Designed and implemented bilingual accounting and inventory software packages.	06/83 - 09/1983
Professional Societies and Affiliations	
I ROPESSIONAL SOCIETIES AND AFFILIATIONS	
• Member of the ACM and many of its Special Interest Groups	01/86 - present
• Member of the IEEE Computer Society and many of its Technical Committees	01/87 - present
• Member of the Harvard Graduate Society	01/88 - present
o Founding Member of the BU Sensor Networking Consortium	01/05 - 12/2012
• Member of the BU Clean Energy Initiative	01/09 - 12/2012
• Member of the IEEE Communication Society	01/92 - 12/2002
• Member of the International Society on Computer Applications (ISCA)	01/92 - 12/1999
• Member of the Association of Egyptian American Scholars	09/91 - 08/1998
• Member of the Association of Egyptian Engineers	06/84 - 08/1991
Honors and Awards	
HONORS AND AWARDS • Recipient of over \$20M in peer-reviewed research awards from government and industry	09/92 – present
	09/93 – present
 Recipient of over \$20M in peer-reviewed research awards from government and industry Senior Common Room Member, Leverett House, Harvard University Elected Chair of the IEEE Computer Society Technical Committee on the Internet 	09/93 - present 01/07 - 12/2012
• Recipient of over \$20M in peer-reviewed research awards from government and industry • Senior Common Room Member, Leverett House, Harvard University	09/93 - present 01/07 - 12/2012 02/2013
 Recipient of over \$20M in peer-reviewed research awards from government and industry Senior Common Room Member, Leverett House, Harvard University Elected Chair of the IEEE Computer Society Technical Committee on the Internet Recipient of BU Ignition Award for Tech Innovation (with Reynolds and Kfoury) Best Paper Award, ACM/IFIP/Usenix International Middleware Conference 	09/93 - present 01/07 - 12/2012 02/2013 12/2012
 Recipient of over \$20M in peer-reviewed research awards from government and industry Senior Common Room Member, Leverett House, Harvard University Elected Chair of the IEEE Computer Society Technical Committee on the Internet Recipient of BU Ignition Award for Tech Innovation (with Reynolds and Kfoury) Best Paper Award, ACM/IFIP/Usenix International Middleware Conference Qatar Foundation Distinguished Arab Expatriate Scientists Award 	09/93 - present 01/07 - 12/2012 02/2013 12/2012 10/2012
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 Recipient of over \$20M in peer-reviewed research awards from government and industry Senior Common Room Member, Leverett House, Harvard University Elected Chair of the IEEE Computer Society Technical Committee on the Internet Recipient of BU Ignition Award for Tech Innovation (with Reynolds and Kfoury) Best Paper Award, ACM/IFIP/Usenix International Middleware Conference Qatar Foundation Distinguished Arab Expatriate Scientists Award Selected as one of 8 academic candidates to the CRA Board of Directors Best Paper Award, ACM/IFIP/Usenix International Middleware Conference Selected as one of 10 academic candidates to the CRA Board of Directors Selected as Distinguished Speaker of the IEEE Computer Society DVP 2010-12 program Inaugural ACM Sigmetrics Test of Time Award for best paper in last 15 years Best Paper Award, IEEE/IFIP Mediterranean Workshop on Ad-Hoc Networking Winner of the United Methodist Scholar/Teacher Award for 2010 CMIC Academic Fellow Award, Microsoft CS Nominee for The Metcalf Excellence in Teaching Award, Boston University Best Paper Award, IEEE/ACM Distributed Computing in Sensor Systems Conference Best Paper Award, Inaugural ACM Wireless Network Security Conference 	09/93 - present 01/07 - 12/2012 02/2013 12/2012 10/2012 01/2012 01/2012 01/2011 03/2010 06/2010 06/2010 06/2008 10/2008 06/2008 06/2008

 \circ Selected as Distinguished Speaker of the IEEE Computer Society DVP 2004-06

 \circ IEEE Distinguished Award for Service to the Real-Time Research Community

 \circ Author of the most referenced Web-related academic publications on WebBib database

• ACM Service Award for Chairmanship of the ACM SIGPLAN LCTES'98	06/1998
• Compaq Award for R&D in CS for work on characterizing Web reference locality	11/1997
• Listed in the 1997/98 International Who's Who of Information Technology	01/1997
• CS Nominee for The Gitner Award for Distinguished Teaching, Boston University	10/1995
• CS Nominee for The Neu Family Award for Excellence in Teaching, Boston University	10/1995
• Harvard University GSAS Class Marshal for the 1992 Commencement	06/1992
\circ ARO/AFOSR/ONR award recipient to participate in the 1992 SE Research Review	05/1992
• Harvard University GSAS/DAS Graduate Fellowship	09/87 - 09/1991
o Recipient of the Dennis Devlin Microsoft Student Award	07/1990
• Harvard University Nominee for the IBM Predoctoral Fellowship	$03/89 \ \ \ \ 03/1990$
o Alexandria University Graduate Fellowship for Academic Excellence	09/84 - 06/1987
o Egyptian National Undergraduate Fellowship for Academic Excellence	09/79 - 06/1984
• Honorary Award from the Syndicate of Egyptian Engineers	10/1984
 Certificate of Recognition from the CS Students Society, Alexandria University 	04/1983
\circ Sadat Award for ranking third over 27,357 students in Egypt's nationwide diploma exam	08/1979

CITATIONS

As of January 2014, Google identified over 13,889 citations to 415 articles authored or co-authored by "Bestavros", with an H-Index of 50, and with 28 articles having in excess of 100 citations each and 123 articles having in excess of 10 citations each. Articles authored or co-authored by "Bestavros" appear as prior art in over 600 patents. [http://scholar.google.com/citations?user=S5B0QmMAAAAJ]

As of January 2013, the Microsoft Academic Index lists over 7,400 citations by over 7,000 different authors to 252 papers authored or co-authored by "Bestavros" (excluding self citations) with an H-Index of 39 and a G-Index of 82. [http://academic.research.microsoft.com/Author/1648575.aspx]

As of July 2012, the Computer Science Index of Scientific Literature (CiteSeer) lists over 3,900 citations to 180 papers authored or co-authored by "Bestavros" (excluding self citations) with an H-Index of 24, and ranks "Bestavros" in the top 10% of the 10,000 most-cited CS authors. [http://citeseerx.ist.psu.edu/stats/authors]

As of its last update in June 2004, the index of research papers on Web technologies (WebBib) lists over 500 citations to core papers of which "Bestavros" was an author or co-author (excluding self citations) and ranks "Bestavros" third out of all 1,086 authors in its databases. [http://www.cs.wpi.edu/~webbib/Authorref.html]

Grants and Sponsored Research (Partial List)

[\$800,000] National Science Foundation. (PI/PD) One of four Investigators Title: SCOPE – A Smart-city Cloud-based Open Platform and Ecosystem Program: Partnerships for Innovation (PFI:BIC)	09/14 - 08/2017
[\$10,000,000] National Science Foundation. (Co-PI) One of ten Investigators Title: Frontier: MACS – A Modular Approach to Cloud Security Program: Secure and Trustworthy Cyberspace (SaTC)	07/14 - 06/2019
[\$110,000] Draper Laboratories. (PI) One of two Investigators Title: FORMSEC Software Inspection System Program: Independent Research and Development Program (IRAD)	07/14 - 06/2015
[\$200,000] National Science Foundation. (Co-PI) One of two Investigators Title: Holistic Cloud Security: Verifiable Computation and Databases Program: Secure and Trustworthy Cyberspace (SaTC)	09/13 - 08/2015
[\$110,000] Draper Laboratories. (PI) One of two Investigators Title: Invariant-Based Characterization of Binary Program Control Flow Graphs Program: Independent Research and Development Program (IRAD)	07/13 - 06/2014
[\$1,000,000] National Science Foundation. (Co-PI) One of six Investigators Title: A Cyber-Physical Infrastructure for the "Smart City" Program: CISE/CPS Cyber-Physical Systems Program	01/12 - 12/2014

[\$38,000] Google. (Co-PI) One of two Investigators Title: Generalized Centrality Measures with Applications to Information Networks	01/12 - 12/2014
Program: Google Faculty Research Award	
[\$3,000,000] National Science Foundation. (PI/PD) One of eight Investigators Title: Towards Trustworthy Interactions in the Cloud. Program: CISE/CNS Trustworthy Computing Program	09/10 - 08/2015
[\$100,000] AFRL BBN Subcontract. (PI/PD) One of two Investigators Title: Cross-Domain Identity Management and Entitlement. Program: Cross-Domain Innovation & Science (award returned due to DFAR restrictions)	04/10 - 03/2011
[\$60,000] AFRL BBN Subcontract. (PI/PD) Sole Investigator Title: Delegation of Authority Web Services. Program: Cross-Domain Innovation & Science (award returned due to DFAR restrictions)	01/10 - 12/2010
[\$199,810] National Science Foundation. (PI/PD) Sole Investigator Title: Towards a Marketplace for Colocation of Cloud Services Program: CISE/CNS EAGER Program	09/09 - 08/2011
[\$165,352] National Science Foundation. (PI/PD) Sole Investigator Title: US-Middle East: Regional Workshop On Emerging Networking Research Program: OISE International Planning and CISE Programs	09/09 - 08/2010
[\$400,000] National Science Foundation. (Co-PI) One of three Investigators Title: Genericity in Network Software Program: CISE/CNS Software for Real Systems Program	09/08 - 08/2011
[\$1,999,573] National Science Foundation. (Co-PI) One of five Investigators Title: Event-Driven Sensing for Enterprise Reconfigurability and Optimization Program: ENG/EFRI Emerging Frontiers in Research and Innnovation	11/07 - 10/2011
[\$99,999] National Science Foundation. (PI/PD) One of three Investigators Title: Leveraging Type Systems for High-Assurance Cyber-Physical Systems Program: CISE/CNS EHS/CPS Computing Systems Research	09/07 - 08/2010
[\$199,000] National Science Foundation. (PI/PD) Sole Investigator Title: NSF Research Infrastructure PI Meeting Supplemental Funding Program: CISE/CNS Major Research Infrastructure Program	06/07 - 05/2008
[\$300,000] National Science Foundation. (PI/PD) One of two Investigators Title: Towards Trusted Adaptation Dynamics in Computing Systems and Networks Program: CISE/CNS Cybertrust Program	09/05 - 08/2009
[\$390,000] National Science Foundation. (Co-PI) One of two Investigators Title: Expressive Resource Specification and Discovery in Configurable Networks Program: CISE/CNS Networking Technology and Systems	09/05 - 08/2009
[\$6,000] National Science Foundation. (PI/PD) Sole Investigator Title: Internet Flows as First Class Values: Support for Dependable Internet Services Program: Research Experiences for Undergraduates	10/05 - 09/2006
[\$25,000] National Science Foundation. (PI/PD) Sole Investigator Title: IEEE ICNP Travel Awards for Graduate Students and Minorities Program: CISE/CNS Networking Technology and Systems	09/05 - 08/2006
[\$37,000] Fortress Technologies. (PI/PD) Sole Investigator Title: Performance Profiling of End-Host Intrusion Detection Systems Program: University Collaboration Program	06/05 - 08/2006
[\$25,000] Microsoft Research. (PI/PD) Sole Investigator Title: BU/CS Industrial Affiliates Program Program: Microsoft University Relations	09/04 - 08/2005
[\$25,000] Sprint Research Labs. (Co-PI) One of two Investigators Title: Cellular Network IP Traffic Measurement and Characterization Program: Sprint Advanced Technology Labs, IP Group	06/05 - 12/2005
[\$6,000] National Science Foundation. (PI/PD) Sole Investigator Title: Internet Flows as First Class Values: Support for Dependable Internet Services Program: Research Experiences for Undergraduates	10/04 - 09/2005

[\$65,000] Microsoft Research. (PI/PD) Sole Investigator Title: BU/CS Industrial Affiliates Program Program: Microsoft University Relations	09/03 - 08/2004
[\$1,665,496] National Science Foundation. (PI/PD) One of five Investigators Title: Internet Flows as First Class Values: Support for Dependable Internet Services Program: Advanced Network Infrastructure and Research	10/02 - 09/2007
[\$1,662,307] National Science Foundation. (PI/PD) One of five Investigators Title: Sensorium: RI for Managing Spatio-Temporal Objects in Video Sensor Networks Program: CISE Educational and Integrative Activities	09/02 - 08/2007
[\$60,000] Microsoft Research. (PI/PD) Sole Investigator Title: BU/CS Industrial Affiliates Program Program: Microsoft University Relations	09/02 - 08/2003
[\$60,000] Sprint Research Labs. (Co-PI) One of four Investigators Title: IP Network Characterization, Analysis, and Evaluation Program: Sprint Advanced Technology Labs, IP Group	07/02 - 06/2003
[\$25,000] Microsoft Research. (PI/PD) Sole Investigator Title: BU/CS Industrial Affiliates Program Program: Microsoft University Relations	09/01 - 08/2002
[\$719,968] National Science Foundation. (Co-PI) One of three Investigators Title: A Control Theoretic Approach to the Design of Internet Traffic Managers Program: Advanced Network Infrastructure and Research	09/01 - 08/2005
[\$1,505,938] National Science Foundation. (PI/PD) One of three Investigators Title: Diagnosis and Control of Network Variability by Massively Accessed Servers Program: Advanced Network Infrastructure and Research	06/00 - 05/2005
[\$25,000] Microsoft Research. (PI/PD) Sole Investigator Title: BU/CS Industrial Affiliates Program Program: Microsoft University Relations	09/00 - 08/2001
[\$14,494] National Science Foundation. (PI/PD) One of three Investigators Title: BU/NSF Workshop on Internet Measurement, Instrumentation and Characterization Program: Advanced Network Infrastructure and Research	08/99 - 07/2000
[\$20,000] Microsoft Research. (PI/PD) Sole Investigator Title: Large-scale WWW Services on the NT Platform Program: University Research Program	01/97 - 12/1998
[\$590,087] National Science Foundation. (PI/PD) One of three Investigators Title: Commonwealth: Architecture and Protocol for Scalable WWW Service Program: CISE Experimental Software Systems	07/97 - 06/2000
[\$325,000] National Science Foundation. (Co-PI/Co-PD) One of six Investigators Title: National Computational Science Alliance: Computer Science Team B Program: NSF/PACI	07/97 - 06/2002
[\$855,800] National Science Foundation. One of six Investigators Title: Parallel and Distributed Systems: Real-time, Multimedia, and High Performance Program: CISE Research Infrastructure Program	07/96 - 06/2001
[\$97,574] National Science Foundation. (PI/PD) One of three Investigators Title: Real-time, Multimedia and High Performance Computing in Distributed Systems Program: CISE/CDA Research Instrumentation Program	01/96 - 12/1997
[\$1,476,322] National Science Foundation. One of eight Investigators Title: Mariner: Metacenter-Affiliated Resource In the New England Region Program: CISE/ASC Metacenter Regional Alliances	01/96 - 12/1998
[\$523,778] Department of Education. (Co-PI) One of eight Investigators Title: High Performance Communication and Multimedia Computing Program: GAANN Fellowships for Strategic Areas of Computer Science	09/95 - 08/1998
[\$218,608] Army Research Office. (PI/PD) Sole Investigator Title: Real-Time Computer Monitoring and Control Methodologies Program: University Basic Research	08/94 - 07/1997

[\$99,807] National Science Foundation (PI/PD) Sole Investigator Title: Cleopatra: A Programming Environment for Embedded Time-critical Systems Program: Research Initiation Award (currently CAREER) Program	09/93 - 12/1996
[\$25,000] GTE Laboratories. (PI/PD) Sole Investigator Title: Speculative Concurrency Control for Distributed Real-time Database Systems Program: University Support Program	07/93 - 06/1995
[\$397,697] National Science Foundation. (Co-PI) One of six Investigators Title: Undergraduate Curriculum in Massively Parallel Computing Program: CISE Educational Infrastructure Program	09/92 - 08/1995

University Service Activities

Service to Boston University:

Service to Boston University.	
- Chair, BU Provost Data Science Faculty Hiring Initiative	09/14-present
– Member, BU Honorary Degree Advisory Committee	09/14-present
– Executive Committee Member, BU Online Programs Development and Review	09/14-present
- Co-Chair, BU Council on Educational Technology and Learning Innovation	09/12-present
- Executive Committee Member, BU Digital Learning Initiative	07/13 - present
– Executive Committee Member, BU Center for Finance, Law, and Policy	06/13-present
– Executive Committee Member, BU Computational Science Building Programming	10/11 - present
– Member, BU IS&T Governance Committee for Research Computing	01/10-present
– Executive Committee Member, BU Center for Information and Systems Engineering	06/05-present
– Founder and Coordinator, BU Computing Alumni Network	06/01 - present
– Member, University Leadership Research Council	01/12 - 06/2013
– Member, BU/CAS United Methodist Scholar/Teacher Award Committee	01/12 - 06/2012
- Member, BU Faculty Council Committee on Scholarly Activities and Libraries	09/10 - 08/2012
– Member, BU/CAS United Methodist Scholar/Teacher Award Committee	01/11 - 06/2011
– Member, BU Information Technology Governance on Education Technology	01/10 - 06/2011
- Member, BU Faculty Council Committee on Planning	09/08 - 08/2010
- Chair, Ad-Hoc Committee for the Development of BU MCS Core Curriculum	11/06 - 12/2008
– Member, BU Whitaker Oversight Committee	01/03 - 12/2004
– Member, Provost Ad-Hoc Committee on BU Science Library Development	09/04 - 06/2005
– Faculty Advisor and Sponsor, BU Video Game Creator Consortium student group	09/03 - 08/2004
– Member, CAS Dean Advisory Council	09/02 - 09/2003
– Member, BU Educational Technologies Committee	01/97 - 01/1999
– Faculty Advisor and Sponsor, BU ACM Student Chapter	06/93 - 05/1999
- Chair, CAS Natural Sciences Curriculum Committee	09/97 - 06/1998
- Coordinator, MCS On-line Classrooms Project	09/97 - 06/1998
– Member, CAS Natural Sciences Curriculum Committee	08/95 - 06/1997
Savvige to the CS Department at Poster University	

Service to the CS Department at Boston University:

– Mentor, CS Tenure-track Faculty	09/10-present
- Coordinator, CS Technical Reports and Archives	09/92-present
– Founder and Coordinator, CS Industrial Affiliates Program	09/00 - 08/2011
- CS Representative for CAS development, recruiting, and advising	09/92 - 06/2011
– Founder and Maintainer, CS Faculty Intranet	09/00 - 08/2007
- Chair, Computer Science Building Planing Committee	01/01 - 06/2003
– Maintainer, CS Department's Web pages	01/94 - 08/2000
- Chair, CS Faculty Recruitment Committee	09/98 - 06/1999
- Chair, Doctoral Examination Committee for Systems and Networks	09/92 - 06/2000
- Member, CS Faculty Recruitment Committee Member	12/97 - 06/1998
– Chair, Systems Curriculum Development Committee	09/96 - 02/1997

– Member, CS Curriculum Review Committee	09/95 - 06/1996
- Chairr, CS Laboratory and Equipment Committee	09/94 - 09/1996
- Member, CS Laboratory and Equipment Committee	09/92 - 09/1994
- Member, CS Faculty Recruitment Committee	12/94 - 06/1995
- Coordinator, CS Colloquium Series	09/92 - 06/1995
- Member, CS Faculty Recruitment Committee	12/93 - 06/1994

Professional Service Activities

Membership in Editorial Boards and Steering Committees:

Membership in Editorial Boards and Steering Committees:	
- Committee Member, ACM Heidelberg Laureate Forum	03/14-present
– Editorial Board Member, Communications of the ACM	07/13 - present
– Co-Chair, CACM Research Highlights Editorial Board	07/13-present
- Founding Steering Committee Member, IEEE Internet of Things Journal	06/12-present
– Editorial Board Member, IEEE Internet Computing	06/07-present
– Founding Steering Committee Member, IEEE TC on Security and Privacy in Complex IS	05/11 - 12/2013
- Chair, IEEE Computer Society Technical Committee on the Internet	01/07 - 12/2012
– Editorial Board Member, International Journal of Embedded Systems	03/04 - 12/2012
– Editorial Board Member, ICST Transactions on Real-World Web	03/09 - 12/2012
- Guest Editor, Journal of Mathematical Structures in Computer Science	01/11 - 06/2012
– Guest Editor, EURASIP Journal on Wireless Communications and Networking	09/09 - 08/2010
- Steering Committee Member, IEEE HotWeb Conference	09/05 - 08/2009
– Editor, Newsletter of the IEEE Technical Committee on Real-Time Systems	01/92 - 12/2008
– Executive Steering Committee Member, IEEE TC on Real-Time Systems	12/02 - 12/2008
- Steering Committee Member, IASTED TC on Measurement and Simulation	09/00 - 08/2007
– Steering Committee Member, International Web Caching Workshop	06/01 - 08/2005
– Steering Committee Member, ACM SIGPLAN Workshop on Tools for Embedded Systems	06/99 - 05/2004
– Advisory Committee Member, IEEE Conference on Industrial Technology & Automation	09/00 - 06/2001
– Steering Committee Member, BU/NSF IMIC Workshop	06/99 - 08/1999
Service to the Research Community:	
– Member, Massachusetts Big Data Advisory Committee	09/14-present
– Co-Chair, Massachusetts Green HPCC Initiative, Educational and Outreach Taskforce	05/10-present
– Industrial Advisory Board Member, European Union CELAR Project	03/13 - present
- Evaluator of promotion cases in major institutions in US, UK, Canada, India, and Israel	09/02-present

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- Steering Committee Member, IASTED TC on Measurement and Simulation	09/00 - 08/2007
- Steering Committee Member, International Web Caching Workshop	06/01 - 08/2005
- Steering Committee Member, ACM SIGPLAN Workshop on Tools for Embedded Systems	06/99 - 05/2004
- Advisory Committee Member, IEEE Conference on Industrial Technology & Automation	09/00 - 06/2001
– Steering Committee Member, BU/NSF IMIC Workshop	06/99 - 08/1999
Service to the Research Community:	
– Member, Massachusetts Big Data Advisory Committee	09/14-present
- Co-Chair, Massachusetts Green HPCC Initiative, Educational and Outreach Taskforce	05/10-present
- Industrial Advisory Board Member, European Union CELAR Project	03/13-present
- Evaluator of promotion cases in major institutions in US, UK, Canada, India, and Israel	09/02-present
- Site visitor for a number of major award competitions of the National Science Foundation	04/97-present
- Panelist for dozens of programs of the National Science Foundation	02/96-present
- Session Chair and/or Panelist in over a dozen conferences and workshops	09/91-present
- Reviewer for dozens of IEEE/ACM journal publications and conference proceedings	04/88-present
- Chair, NSF CISE Committee of Visitors for CNS DIvision	06/14 - 11/2014
- Chair, NSF Reverse Site Visit Committee for CCC	01/14 - 06/2014
- External Review Committee for CS Department at American University in Beirut	06/13 - 12/2013
– Member of the 2013 MGHPCC Research Seed Fund Award Committee	09/12 - 03/2013
– External Review Committee for CS Department at Bowdoin College	11/12 - 06/2013
– Member of the 2012 MGHPCC Research Seed Fund Award Committee	09/11 - 03/2012
- Chair, ACM Sigmetrics Test of Time Award Nomination and Selection Committee	04/11 - 06/2011
– External Review Committee for CS Department at University of Texas, Arlington	03/09 - 06/2009
– Host and Maintainer of the Archives of IEEE Technical Committee on Real-Time Systems	01/92 - 12/2008
– External Review Committee for CS Department at Purdue University	03/05 - 12/2005
– Web/Internet Area Editor of the ACM Crossroads student magazine	02/03 - 01/2004
– Area Editor of the Journal for Undergraduate Science Research, Harvard University	09/94 - 08/1997

Organization of Professional Meetings:

Organization of Professional Meetings:	
- General Co-Chair, IEEE International Conference on Cloud Engineering	01/13 - 06/2014
– PC co-Chair, International Conference on Web Information Systems Engineering	01/14 - 11/2014
– Chair, NSF US/Mideast Trustworthy Systems and Networks Workshop	09/11 - 12/2013
- Chair, 2012 New England Faculty Summit on Cyber Security	01/12 - 06/2012
- Chair, 2011 New England Faculty Summit on Cyber Security	01/11 - 06/2011
– Co-Chair, Workshop on Holyoke Green HPC Educational & Outreach Opportunities	01/10 - 04/2010
– PC Chair, Conference on Wireless Algorithms, Systems, & Applications	09/08 - 08/2009
– General and PC Chair, US NITRD High-Confidence Software and Systems Workshop	01/07 - 07/2007
– General and Program Chair, BU/NSF RI/MRI/CRI PI Meeting	08/06 - 06/2007
- General Chair, Inaugural IEEE HotWeb Conference	11/05 - 12/2006
– Workshop Chair, 2006 CRA Snowbird Conference	01/06 - 08/2006
- General Chair, 2005 IEEE International Conference on Network Protocols	02/04 - 11/2005
– General Chair, Fourth IEEE Workshop on Wireless Applications & Services	09/03 - 08/2004
- General Chair, Sixth International Web Caching Workshop	06/00 - 06/2001
– PC co-Chair, Sixth International Web Caching Workshop	06/00 - 06/2001
- Workshop Chair, 2000 CRA Snowbird Conference	01/00 - 07/2000
– General Chair, 1999 IEEE Real-Time Technology and Applications Symposium	06/98 - 06/1999
– PC Chair, 1998 ACM SIGPLAN Workshop on Tools for Embedded Systems	09/97 - 06/1998
– PC Chair, 1998 IEEE Real-Time Technology and Applications Symposium	06/97 - 06/1998
– PC Chair, 1997 IEEE International Workshop on Real-Time Databases	06/96 - 07/1997
– PC Chair, WIP Track of the 1997 IEEE Real-Time Systems Symposium	06/97 - 12/1997
– PC Chair, WIP Track of the 1996 IEEE Real-Time Systems Symposium	06/96 - 12/1996
– Publicity Chair, 1996 IEEE Workshop on Real-Time Databases	08/95 - 03/1996
– Publicity Chair, 1995 IEEE Real-Time Systems Symposium	01/95 - 12/1995
Souries on Technical Duognam Committees (neutial list).	
Service on Technical Program Committees (partial list):	01/10 06/0010
- 2013 International Conference on Web Information Systems Engineering	01/12 - 06/2013
- 2013 WWW Workshop on Simplifying Complex Networks for Practitioners	12/12 - 06/2013
- 2013 IEEE International Conference on Cloud Engineering	03/12 - 02/2013
- 2013 IEEE INFOCOM Conference on Computer and Communications	06/12 - 02/2013
- 2012 International Conference on Web Information System Engineering	01/12 - 09/2012
 2012 IEEE INFOCOM Conference on Computer and Communications 2011 IEEE MCIS Conference on Information Systems 	06/11 - 02/2012 05/11 - 09/2011
- 2011 IEEE INFOCOM Conference on Computer and Communications	05/11 - 09/2011 05/10 - 02/2011
- 2011 ACM Multimedia Systems conference	03/10 - 02/2011 03/10 - 09/2010
- 2011 ACM Multimedia Systems conference - 2010 IEEE INFOCOM Conference on Computer and Communications	, ,
- 2010 ACM Multimedia Systems conference	05/09 - 02/2010 03/09 - 02/2010
- 2009 IEEE INFOCOM Conference on Computer and Communications	05/09 - 02/2010 05/08 - 04/2009
- 2009 World Wide Web Conference	09/08 - 04/2009 09/08 - 03/2009
- 2009 Workshop on Privacy and Security in Pervasive e-Health Environments	09/08 - 05/2009 01/09 - 05/2009
- 2008 ACM PODC Symposium on Principles of Distributed Computing	09/07 - 09/2008
- 2008 ACM Sigmetrics Conference on Measurement and Modeling of Computer Systems	07/07 - 02/2008
- 2008 IEEE INFOCOM Conference on Computer and Communications	05/07 - 04/2008
- 2008 LA-WEB Latin American Web Congress	05/08 - 12/2008
- 2007 IEEE/W3C Web Congress	01/07 - 07/2007
- 2007 ACM Sigmetrics Conference on Measurement and Modeling of Computer Systems	09/06 - 07/2007
- 2007 World Wide Web Conference	08/06 - 06/2007
- 2007 IEEE Global Internet Symposium	06/06 - 05/2007
- 2007 LA-WEB Latin American Web Congress	05/07 - 10/2007
– 2006 IEEE Real-Time Systems Symposium	01/06 - 12/2006
- 2006 Workshop on Architectures and Algorithms for Internet Delivery	01/06 - 12/2006

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- 2006 ACM/Usenix International Conference on Virtual Execution Environments	09/05 - 06/2006
- 2006 IEEE International Conference on Parallel and Distributed Systems	09/05 - 06/2006
- 2006 IASTED International Conference on Modeling and Simulation	09/05 - 03/2006
- 2005 IEEE Real-Time Systems Symposium	01/05 - 12/2005
- 2005 Web Caching and Content Delivery Workshop	11/04 - 06/2005
- 2005 World Wide Web Conference	09/04 - 06/2005
- 2005 Workshop on Architectures and Algorithms for Internet Delivery	01/05 - 06/2005
- 2005 IASTED International Conference on Modeling and Simulation	09/04 - 03/2005
- 2004 International Conference On Principles Of Distributed Systems	06/04 - 06/2005
- 2004 IEEE Real-Time Systems Symposium	01/04 - 12/2004
 2004 Workshop on Broadband Advanced Sensor Networks 2004 BIRS Workshop on Combinatorial and Algorithmic Aspects of Networking 	03/04 - 10/2004 $01/04 - 07/2004$
- 2004 BHGS Workshop on Combinatorial and Algorithmic Aspects of Networking - 2004 IEEE INFOCOM Conference on Computer and Communications	03/03 - 06/2004
- 2004 IEEE Real-Time and Embedded Technology and Applications Symposium	08/03 - 00/2004 $08/03 - 03/2004$
- 2004 IASTED International Conference on Modeling and Simulation	09/03 - 03/2004 $09/03 - 03/2004$
- 2004 ACM SIGKDD Workshop on Fractals, Power Laws, and Data Mining Tools	04/03 - 03/2004
- 2003 IEEE Workshop on Internet Applications	08/02 - 08/2003
- 2003 IEEE ICDCS Workshop on Data Distribution in Real-Time Systems	03/02 - 05/2003 11/02 - 05/2003
- 2003 IASTED International Conference on Modeling and Simulation	09/02 - 03/2003
- 2003 IEEE Symposium on Computer and Communication	09/02 - 04/2003
- 2002 IEEE Global Internet Symposium	09/02 - 04/2003 $09/01 - 06/2002$
- 2002 Workshop on Caching, Coherence, and Consistency	03/02 - 06/2002
- 2002 Euromicro Conference On Real-Time Systems	05/02 - 06/2002
- 2002 IEEE Symposium on Computer and Communication	03/01 - 06/2002
- 2002 IASTED International Conference on Modeling and Simulation	09/01 - 03/2002
- 2001 International Conference on Industrial Technology and Automation	01/01 - 12/2001
- 2001 IEEE Real-Time Systems Symposium	01/01 - 12/2001
- 2001 IEEE Global Internet Symposium	02/01 - 09/2001
- 2001 IEEE/IFIP Dependable Systems and Networks	12/00 - 09/2001
- 2001 ACM Sigmetrics Conference on Measurement and Modeling of Computer Systems	06/00 - 06/2001
– 2001 Euromicro Conference On Real-Time Systems	05/00 - 05/2001
- 2001 IEEE Symposium on Computer and Communication	01/00 - 03/2001
- 2000 IEEE Real-Time Systems Symposium	01/00 - 12/2000
- 2000 IEEE IC3N Conference	01/00 - 09/2000
– 2000 Euromicro Conference on Real-Time Systems	03/99 - 06/2000
- 2000 IEEE International Conference on Data Engineering	03/99 - 11/1999
– 1999 Joint 24th IFAC/IFIP Conference on Real-Time Programming	06/98 - 03/1999
– 1999 Workshop on e-Commerce and Web-based Information Systems	07/98 - 03/1999
– 1999 Workshop on Active and Real-time Databases	07/98 - 03/1999
– 1998 IEEE Real-Time Systems Symposium	01/98 - 12/1998
– 1999 Workshop on Parallel and Distributed Real-Time Systems	05/98 - 09/1998
– 1998 ACM CIKM Workshop on Real-time Databases	06/98 - 09/1998
– 1998 ACM Sigmod Conference on Management of Data	02/97 - 02/1998
– 1997 IEEE Real-Time Systems Symposium	01/97 - 12/1997
- 1997 Real-Time Applications Workshop	09/96 - 06/1997
– 1997 Second Real-Time Education Workshop	09/96 - 06/1997
– 1997 Euromicro 9th Workshop on Real-Time Systems	09/96 - 06/1997
– 1997 International Workshop on Active and Real-Time Databases	09/96 - 06/1997
- 1997 IEEE Real-Time Technology and Applications Symposium	06/96 - 06/1997
- 1997 IEEE ICDE Workshop on Research Issues in Data Engineering	05/96 - 01/1997
- 1996 IEEE Real-Time Systems Symposium	01/96 - 12/1996
– 1996 ACM CIKM Workshop on Active and Real-Time Databases	05/96 - 11/1996

– 1996 HICSS Conference on Parallel & Distributed RT Systems	09/95 - 03/1996
– 1996 IEEE Workshop on Real-Time Databases	09/95 - 03/1996
– 1994 IEEE Real-Time System Symposium	01/94 - 12/1994
– 1994 ACM Sigplan RTLCTS Workshop	01/94 - 06/1994
Other Service, Volunteer Work and Extracurricular Activities:	
– Volunteer educational/outreach services to Wayland K-12 Public Schools, Wayland, MA	09/08-present
– Editor of the Coptic Network Society Newsletter and Maintainer of its archives	01/92 - 12/2011
– Collegial Tutor and Choir Member, St. Mark Coptic Orthodox Church, Natick, MA	03/90 - 08/2002
- Curator of the Senior Common Room, Leverett House, Harvard University	09/95 - 06/1998
- Computer Science Resident Tutor, Leverett House, Harvard University	08/94 - 06/1998
- Graduate Representative, Harvard University Presidential search committee	09/90 - 03/1991
– Member of the Committee on Graduate Education, Harvard University	06/90 - 06/1991
- Resident Host, Dana-Palmer historic guest house, Harvard University	01/90 - 07/1994
- Moderator of Egypt-Net Digest and maintainer of its software systems	01/88 - 06/1992
- Vice President, Graduate Student Council, Harvard University	02/89 - 06/1991
- Resident Advisor, Graduate Residence Halls, Harvard University	09/88 - 06/1990
- Treasurer, Graduate Dormitory Council, Harvard University	09/87 - 09/1988
– Scientific Officer, Computer Science Students Society, Alexandria University	01/81 - 01/1984

Invited Lectures, Talks, and Colloquia (Partial List)

• ACM SIGAPP MEDES Conference, Qassim, Saudi Arabia "The Open Cloud eXchange" Pleneray Talk	September 2014
• Aramco Distinguished Seminar Series, Dharan, Saudi Arabia "The Massachusetts Open Cloud: Vision and Progress" Host: J. Schley	September 2014
• AAU Spring Partners Meeting Washington, DC "Online Learning in the 21st Century: MOOCs and More" B. Brown	April 2014
• Society for College and University Planning Annual Meeting, Boston, MA "Online Technology meets Residential Education" Pleneray Talk	April 2014
o BBN/GENI Training Workshop Keynote Address, Cambridge, MA "The Open Cloud eXchange" Host: N. Riga	January 2014
• Framingham Heart Study Scientific Retreat Keynote, Boston, MA "Healthcare meets Big Data: Challenges and Opportunities" Host: C. O'Donnell	November 2013
• International Advisory Board Meeting, London, UK "Digital Learning Technologies: Opportunities and Challenges" Host: R. Brown	October 2013
• BU Medical School Community of the Practice, Boston, MA "Educational Technology and Learning Innovation" Host: G. Cohen	September 2013
o BU Alumni New Ventures Workshop Keynote, San Fransisco, CA "Healthcare meets Big Data" Host: B. Brown	June 2013
• BU IS&T Strategic Town Hall Meeting, Boston, MA "Educational Technology and Learning Innovation" Host: T. Schroeder	April 2013
• International Advisory Board Meeting, Dubai, UAE "Digital Learning Technologies: Opportunities and Challenges" Host: R. Brown	March 2013
• Cloud Computing Initiative Mini Symposium, Boston, MA "The Open Cloud eXchange" Host: O. Krieger	February 2013
• Rochester Institute for Technology, Rochester, NY "Mechanisms for Efficient Cloud Markets" Host: L. Reznik & K. Xiong	December 2012
• WISE'12 Keynote Address, Paphos, Cyprus "Mechanisms for Efficient Cloud Exchanges" Host: A. Delis	November 2012
• Advanced Cyber Security Center Annual Symposium, Boston, MA "Towards a Secure Cloud Exchange Market" Host: W. Guenther	November 2012
 Qatar Foundation Annual Research Forum, Doha, Qatar "QNRS Cloud Strategy Review and Recommendations" Host: I. Ilyas 	October 2012

o Bentley College, Joint CIS/IDCC/IPM Seminar, Waltham MA "Mechanisms for Efficient Cloud Exchanges" Host: R. Galliers	October 2012
o Universidade Federal de Minas Gerais, CS Dept, Belo Horizonte, Brazil	$September\ 2012$
"Mechanisms for Efficient Cloud Markets" Host: V. Almeida & W. Meira National Lab for Scientific Computing, LNCC, Petropolis, Brazil "Cyber-Enabled Discovery and Innovation" Host: A. Ziviani	September 2012
• Koc University, CE Dept, Istanbul, Turkey "Towards a Trustworthy Marketplace for Cloud Resources" Host: O. Ozkasap	June 2012
• University of Southern California, CS Dept, Los Angeles, CA "In Clouds We Trust: Mechanisms for Efficient Cloud Markets" Host: S. Teng	February 2012
• Worcester Polytechnic Institute, CS Dept, Worcester, MA "Mechanism Design for Trustworthy Clouds" Host: C. Wills	January 2012
• BU/CAS Discoveries Lecture Series, Boston, MA "The Role of Social Media in Political Uprisings" Host: G. Wilson	October 2011
• NIST Cloud Assumption Buster Workshop, Gaithersburg, MD "An Economics Approach to Secure and Trustworthy Clouds" Host: B. Newhouse	October 2011
• DIMACS Workshop on Advances in Cloud Computing, Piscataway, NJ "Towards a Trustworthy Marketplace for Cloud Resources" Host: A. Akella	December 2011
• Cloud Control Conference, Boston, MA "CloudCommons: Overview of Research in Cloud Security" Host: B. Zvaifler	July 2011
o Financial Services Roundtable Technology Group, Washington, DC	June 2011
"In CLouds We Trust" Host: D. Schutzer o Nina Zolt Lecture and Discussion Series at BU, Boston, MA "Time in CS: Gauge, Currency, and Illusion" Host: S. Grossberg	April 2011
o MTTC 6th Conference on Clean Energy, Boston, MA	November 2011
"Green Computing: Challenges and Opportunities" Host: J. Kurose • InfraGard Professional Development Lecture Series, Boston, MA "Trustworthy Interaction in the Cloud" Host: T. Zlateva	November 2011
• University of British Columbia, ECE Dept, Vancouver, Canada "Network and Cloud Resource Packing Games" Host: S. Gopalakrishnan	October 2010
• University of Massachusetts, Lowell, CS Dept, Lowell, MA "Network and Cloud Resource Packing Games" Host: G. Chen	September 2010
• New Hampshire Chapter of IEEE-CS, Nashua Community College, NH "Exciting CS Research and Career Opportunities" Host: B. Bancroft	September 2010
• Institut Eurecom, Sophia-Antipolis, France "Network and Cloud Resource Packing Games" Host: P. Michiardi	June 2010
• Deutsche Telekom Labs, TU Berlin, Germany "Network and Cloud Resource Packing Games" Host: G. Smaragdakis	June 2010
• University of Texas, CS Dept, San Marcos, TX "System and Network Resource Management Games" Host: M. Guirguis	April 2010
• Boston University, Sociology Dept, Boston, MA "Technology, Society, & Public Policy: Tussles in Cyberspace" Host: L. Smith-Doerr	February 2009
• University of Notre Dame, CSE Dept, South Bend, IN "System and Network Resource Management Games" Host: K. Bowyer	December 2009
• Georgia Institute of Technology, CS Dept, Atlanta, GA "System and Network Resource Management Games" Host: M. Ammar	November 2009
• University of California, ECE Dept, Riverside, CA "Virtualization Support for Video Sensor Networks" Host: B. Bhanu	May 2009
• German University in Cairo, Egypt "Resource Allocation in Clouds and P2P Overlays" Host: A. ElNahas	December 2008
• Microsoft Innovation Labs, Cairo, Egypt "Game-Theoretic Approaches to P2P Resource Allocation" Host: T. Abbadi	December 2008
• Telefonica Research Labs, Barcelona, Spain "Deconstructing the Current Models of CS publications" Host: P. Rodriguez	November 2008
• Institut Eurecom, Sophia-Antipolis, France "Implications Of Selfish Neighbour Selection" Host: P. Michiardi	November 2008
• Amazon Research, Seattle, WA "Game-Theoretic Approaches for Cloud Resource Management" Host: A. Bradley	July 2008

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• CRA 2008 Snowbird Conference, Snowbird, UT "On the Instrumentation Needs of CISE Research" Host: J. Fortes	July 2008
• Boston University, CISE, Boston, MA "Thou Shalt Be A Selfish Overlay Neighbor" Host: C. Cassandras	December 2007
• University of Toronto, CS Dept, Toronto, Canada "Thou Shalt Be A Selfish Overlay Neighbor" Host: J. Liebeherr	$October\ 2007$
o University of Massachusetts, Lowell, CS Dept, Lowell, MA	October 2007
"Implications Of Selfish Neighbour Selection" Host: J. Wang • Nortel Networks, Billerica, MA	October 2007
"Selfish Neighbour Selection in Overlay Networks and P2P Systems" Host: A. Onart • Workshop on High Confidence Medical Devices, Cambridge, MA	July 2007
"Programming support for embedded sensor networks" Plenary Talk • National Colloquium for Info Systems Security Education, Boston, MA	June 2007
"Internet RoQ Attacks: Network Security is a Systems Challenge" Plenary Talk • University of Notre Dame, CSE Dept, South Bend, IN	April 2007
"If You Build It They Will Come: The snBench Architecture" Host: A. Striegel • BBN Technologies, Cambridge, MA	March 2007
"The Sensor Network Programming Workbench Architecture" Host: R. Schantz	
• Boston University, ECE Dept, Boston, MA "snBench: The Sensor Network Programming Workbench" Host: M. Herbordt	February 2007
• University of Massachusetts, CS Dept, Dartmouth, MA "Scalable and Practical Interoperability Checks in TRAFFIC" Host: B. Mikolajczak	December 2006
• Wellesley College, CS Dept, Wellesley, MA "Internet RoQ Attacks: Vulnerabilities and Countermeasures" Host: P. Metaxas	November 2006
• BU Sensor Network Consortium, Boston, MA "snBench: The Sensor Network Programming Workbench" Host: Y. Paschalidis	November 2006
• Workshop on Aviation Software Systems, Alexandria, VA "Compositional Verification of Distributed Embedded Systems" Plenary Talk	October 2006
• VMware Lecture Series, VMware Research Lab, Cambridge, MA "Friendly Virtual Machines" Host: J. Austin	June 2006
• CRA 2006 Snowbird Conference, Snowbird, UT "Deconstructing the Current Models of CS publications" Host: A. Bernat	June 2006
o ISTS Distinguished Lectures, Dartmouth College, Dartmouth, NH	May 2006
"Internet RoQ Attacks: Vulnerabilities and Countermeasures" Host: D. Kotz • Purdue University, CS Dept, West Lafayette, IN	October 2005
"Internet RoQ Attacks: Vulnerabilities and Countermeasures" Host: S. Hambrusch • Microsoft Research, Redmond, WA	July 2005
"Friendly Virtual Machines" Host: M. Peinado o Microsoft Research, Redmond, WA	July 2005
"Internet RoQ Attacks: Vulnerabilities and Countermeasures" Host: V. Padmanabhan o BU Sensor Network Consortium, Boston, MA	May 2005
"The snBench Sensor Network Programming Architecture" Host: Y. Paschalidis Old Dominion University, CS Dept, Norfolk, VA	April 2005
"Scalable Delivery of Streaming Media in Ad-Hoc Overlays" Host: H. Wahab • University of Virginia, CS Dept, Charlotesville, VA	April 2005
"Internet RoQ Attacks: Vulnerabilities and Countermeasures" Host: J. Stankovic • Boston University, CISE, Boston, MA	February 2005
"Internet RoQ Attacks: Vulnerabilities and Countermeasures" Host: Y. Paschalidis	, and the second
• BBN Technologies, Cambridge, MA "RoQ Attacks on Internet Resources" Host: J. Redi	January 2005
• Harvard University, CS Dept, Cambridge, MA "Exploiting the Transients of Adaptation for Internet RoQ Attacks" Host: M. Welsh	November 2004
• University of Puerto Rico, IEEE CS Chapter, Mayaguez, PR "Sensor Networks: The Dream, Reality, and Science in Between" Host: M. Peres	November 2004
• University of Puerto Rico, CS Dept, Mayagez, PR "Practical, Efficient Construction of Network Caricatures" Host: N. Santiago	November 2004
 University of Puerto Rico, CS Dept, Mayagez, PR "Characterization of Live Streaming Media Workloads" Host: M. Rodriguez 	November 2004

• University of North Carolina, CS Dept, Chapel Hill, NC "Practical, Efficient Construction of Network Caricatures" Host: K. Jeffay	October 2004
• North Carolina State University, CS Dept, Raleigh, NC "Exploiting the Transients of Adaptation for Internet RoQ Attacks" Host: K. Harfoush	October 2004
• University of Cambridge, England, UK "Exploiting the Transients of Adaptation for Internet RoQ Attacks" Host: J. Crowcroft	October 2004
• Microsoft Research, Cambridge, England, UK "Practical, Efficient Construction of Network Caricatures" Host: A. Donnelly	October 2004
• IHP Microelectronics, Frankfurt Oder, Germany "RoQ Attacks on Internet Resources" Host: P. Langendoerfer	October 2004
• Alexandria University, CS Dept, Alexandria, Egypt "Practical, Efficient Construction of Network Caricatures" Host: A. Khalil	October 2004
• University of Connecticut, CS Dept, Storrs, CT "Exploiting the Transients of Adaptation for Internet RoQ Attacks" Host: J. Cui	September 2004
• Rensselaer Polytechnic Institute (RPI), NY "RoQ Attacks on Internet Resources" Host: B.Yener	April 2004
• UC Berkeley, ICIR/ICSI, Berkeley, CA "Practical, Efficient Construction of Network Caricatures" Hosts: R.Karp and S.Floyd	October 2003
o Boston University, CCS, Boston, MA	$September\ 2003$
"Practical and Efficient Construction of Network Caricatures" Host: C. Rebbi • IEEE ICDCS Workshop on Real-Time Data Distribution, Providence, RI "Scalable Real-Time Streaming in Ad-Hoc Overlay Networks" Host: L. DiPippo	May 2003
• Boston University, ECE Dept, Boston, MA "Practical and Efficient Construction of Network Caricatures" Host: M. Herbordt	$December\ 2002$
• International Workshop on Networked Group Communication, Boston, MA "P2P: Fundamental Research or Illegal Activities?" Host: B. Levine	October 2002
o Purdue University, West Lafayette, IN	$October\ 2002$
"Inference and Labeling of Network-Induced Network Topologies" Host: K. Park • ACM Workshop on Caching, Coherence, and Consistency, Columbia U, NY "Caching Architectures for Scalable Streaming Media Delivery" Plenary Talk	June 2002
• DIMACS Internet Measurement, Mapping and Modeling, Rutgers U, NJ "Inference and Labeling of Metric Induced Network Topologies" Host: D. Raz	February 2002
• US Personalization Summit, New York, NY "Implications of Zipf's Law on Web Profiling Technologies" Plenary Talk	November 2000
• European Personalization Summit, London, UK "Impact of Zipf's Law on Personalization and ROI" Plenary Talk	September 2000
• Association of Internet Professionals/MIT, Cambridge, MA "Advances in Scalable Content Distribution" Host: G. Trojillo	May 2000
• Akamai Technologies Inc., Cambridge, MA "Connection Scheduling Strategies for Scalable Web Servers" Host: C. Leiserson	September 1999
• Massachusetts Telecommunications Council, Cambridge, MA "Commonwealth Scalable Web Server Architecture" Host: Tanya Zalateva	June 1999
• Microsoft Explorer Conference, Boston, MA "Towards Sites that Think: Personalization Strategies" Host: A. Caglayan	December 1998
• Denver University, Denver, CO "Distributed Connection Routing in the Commonwealth Architecture" Host: D. Martin	$October\ 1998$
• Microsoft Research, Redmond, WA "Distributed Packet Rewriting for Scalable Web Servers" Host: D. Lommet	May 1998
• Bay Networks, Billerica, MA "The Commonwealth Server Project at BU" Host: J. Shaio	March 1998
• ACM, Greater Boston Chapter, Cambridge, MA "Taming the WWW: From Measurements to Protocol Design" Host: P. Govindara	January 1998
• Boston University, ECE Dept, Boston, MA "Statistical Rate Monotonic Scheduling" Host: B. Saleh	$November\ 1997$
o The Open Group, Cambridge, MA	August 1997
"TCP Boston: Trading Off Bandwidth For Timeliness" Host: R. Clark • The Mitre Corporation, Bedford, MA "Taming the WWW: From Measurements to Protocol Design" Host: B. Thurasignham	April 1997

• University of Vermont, CS Dept., Burlington, VT "Web Reference Locality: Characteristics and Applications" Host: S. Baruah	March 1997
• Charles River Analytics, Cambridge, MA "Server-initiated Replication and Prefetching for the Web" Host: A. Kaglayan	$December\ 1996$
o Worcester Polytechnic Institute, CS Dept., Worcester, MA	November 1996
"Towards Scalable WWW Services" Host: C. Wills • DCI Internet Expo, Hynes Convention Center, Boston, MA	September 1996
"Middleware Services for the World Wide Web" Host: IEEE-CS, Boston Chapter • AT&T Research, Bell Labs, Murray Hill, NJ	August 1996
"Prefetching Techniques for the WWW" Host: Y. Freund	, and the second
• AT&T Research, Bell Labs, Murray Hill, NJ "Taming the Web through Measurements and Protocol Design" Host: A. Greenberg	August 1996
• University of Rhode Island, CS and Statistics Dept., RI "From Web Measurements to Web Protocol Design" Host: V. Wolfe	July 1996
o University of Pennsylvania, CS Dept., Philadelphia, PA "Locality of Reference Properties in WWW Information Systems" Host: I. Lee	May 1996
o University of Massachusetts at Amherst, CS Dept., Amherst, MA	March 1996
"Server-initiated Replication and Prefetching in DIS" Host: K. Ramamritham Northeastern University, CCS Dept., Boston, MA	February 1996
"Information Dissemination for Large-scale Information Systems" Host: I. Matta • University of Maryland at College Park, CS Dept., College Park, MD	December 1995
"Exploiting WWW Locality of Reference" Hosts: U. Shankar and S. Tripathi • University of Texas at Arlington, CSE Dept., Arlington, TX	October 1995
"Speculative Data Dissemination and Service for the WWW" Host: R. ElMasri	
• University of Michigan at Ann Arbor, EECS Dept., Ann Arbor, MI "Speculative Concurrency for Real-Time Systems" Hosts: K. Shin and N. Soparkar	August 1995
• AT&T Bell Labs, Dept., Murray Hill, NJ "Timeliness via Speculation for Real-Time Databases" Host: A. Biliris	July 1995
• New Jersey Institute of Technology, CS Dept., NJ	July 1995
"Speculative Execution Methodologies for Real-Time Systems" Host: A. Stoyenko Tufts University, CSE Dept., Cambridge, MA	$April\ 1995$
"Physically-correct Specifications of Embedded Systems" Host: R. Jacob • Harvard University, CS Dept., Cambridge, MA	May 1994
"Timeliness via Speculation" Host: V. Milenkovic	0 1
• GTE Laboratories, Waltham, MA "Performance Evaluation of RT Concurrency Control Protocols" Host: L. Bradley	January 1994
• Harvard University, CS Dept., Cambridge, MA	July 1993
"Speculative Concurrency Control for Responsive Databases" Host: T. Cheatham • GTE Laboratories, Waltham, MA	July 1993
"Speculative Concurrency Control" Host: L. Bradley Ouniversity of Connecticut, CS Dept., Storrs, CT	November 1992
"CLEOPATRA: A TRA-based Language and Environment" Host: R. Ammar	
• University of Rhode Island, CS Dept., Providence, RI "TRA-based Development of Embedded Real-Time Systems" Host: V. Wolfe	February 1992
• Boston University, CS Dept., Boston, MA "Time-constrained Reactive Automata" Host: A. Kfoury	June 1991
o University of California at Irvine, CS Dept., Irvine, CA "Time-constrained Reactive Automata" Host: N. Leveson	March~1991
o North American Philips Corporation, Briarcliff Manor, NY	November 1990
"Real-time Intelligent Control Systems" Host: D. Lyons o TIMS/ORSA National Joint Meeting, Las Vegas, NV	May 1990
"An Algorithm for Self-diagnosis in Distributed Systems"	December 1989
• AT&T Bell Labs, Dept. 4531, Holmdel, NJ "IDA: A Novel RAID Design" Hosts: R. Morris & W. Wong	
• AT&T Bell Labs, Dept. 1122, Murray Hill, NJ "IOTA-based Specification and Verification" Hosts: L. Miller & M. Wish	August 1989
• AT&T Bell Labs, Dept. 1125, Murray Hill, NJ "The IOTA Model of Computation" Hosts: M. Merrit & P. Zave	July 1989
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- [o] Mark Reynolds, Azer Bestavros, and Assaf Kfoury. Software Inspection System. Patent Application Number US 13780448, filed by Boston University on February 28, 2013. Technology is basis of a BU startup incubated at the Hariri Institute for Computing, 2013.
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- [o] Azer Bestavros and Alia Atlas. Statistical Rate Monotonic Scheduling. Invention Disclosure and Provisional Patent Application Filed by BU. Technology is licensed to Tripacific Software, Inc., 1999.

PhD Thesis Supervision

Kristin Mead, PhD 2018 (exp), CS Dept, Boston University Topic: Moving Target Defense	(Main Advisor)	09/14 - present
Wil Koch, PhD 2018 (exp), CS Dept, Boston University Topic: Cloud Security	(Main Advisor)	09/14 - present
Ugur Kaynar, PhD 2018 (exp), CS Dept, Boston University Topic: Cloud Security	(Main Advisor)	09/13 - present
Sanaz Bahargam, PhD 2016 (exp), CS Dept, Boston University Topic: Cloud Security	(Main Advisor)	06/11 - present
Christine Bassem, PhD 2014 (exp), CS Dept, Boston University Topic: MANET Services	(Main Advisor)	09/08 - present
Richard Skowyra, PhD 2014 (exp), CS Dept, Boston University Title: Composable Verification With Application to SDN-Enabled Systems	(Main Advisor)	06/09 - 05/2014
Vatche Ishakian, PhD 2013, CS Dept, Boston University Title: Strategic And Operational Services For Workload Management In Th	(Main Advisor) ne Cloud	09/08 - 12/2012
Raymond Sweha, PhD 2013, CS Dept, Boston University Title: Optimizing On-Demand Resource Deployment For Peer-Assisted Com	(Main Advisor) tent Delivery	01/06 - 12/2012
Jorge Londono , PhD 2010, CS Dept, Boston University Title: Embedding Games: Distributed Resource Management with Selfish U	(Main Advisor) Jsers	09/05 - 05/2010
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Hany Morcos, PhD 2008, CS Dept, Boston University Title: Service Provisioning in Mobile Networks Through Coordinated Resources	(Main Advisor) arce Management	01/03 - 08/2008
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Mina Guirguis, PhD 2006, CS Dept, Boston University Title: Reduction-of-Quality Attacks on Adaptation Mechanisms	(Main Advisor)	01/01 - 08/2006
Adam Bradley, PhD 2004, CS Dept, Boston University Title: A Type-Disciplined Approach to Developing Resources and Application	(Main Advisor) ons for the WWW	09/97 - 09/2003
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Khaled Harfoush, PhD 2002, CS Dept, Boston University Title: Metric-Induced Network Topologies	(Main Advisor)	09/98 - 05/2002
Alia Atlas, PhD 1999, CS Dept, Boston University Title: Statistical Rate Monotonic Scheduling	(Main Advisor)	09/95 - 09/1998
Gitae Kim, PhD 1998, CS Dept, Boston University Title: AFTER: A Framework for Adaptive Forward Timely Erasure Recove.	(Main Advisor)	09/95 - 06/1998
Sue Nagy, PhD 1997, CS Dept, Boston University Title: Admission Control and Overload Management for Real-Time Database	(Main Advisor)	09/94 - 05/1997
Carlos Cunha, PhD 1997, CS Dept, Boston University Title: Trace Analysis and its Applications to Performance Enhancements of	(Main Advisor)	09/94 - 05/1997
Euthimios Panagos, PhD 1996, CS Dept, Boston University Title: Client-Based Logging: A New Paradigm for Distributed Transaction	(Main Advisor) Management	09/93 - 01/1996
Spyridon Braoudakis, PhD 1994, CS Dept, Boston University Title: Concurrency Control Protocols for Real-Time Databases	(Main Advisor)	09/91 - 11/1994

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Jun Liu, PhD 2003, CS Dept, Boston University Title: Characterizing Network Elements and Paths Using Packet Loss B	(Committee Chair) ehavior	09/95 - 08/2002
Andrej Cvetkovski PhD 2013, CS Dept, Boston University Title: Graph Embeddings for Low-stretch Greedy Routing	(2^{nd} Reader)	01/12 - 12/2012
Chong Wang PhD 2013, CS Dept, Boston University Title: Modeling and Optimizing Content-Oriented Networks	(2^{nd} Reader)	01/12 - 12/2012
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Gabriel Parmer, PhD 2009, CS Dept, Boston University Title: Component-Based Operating System for Application-Specific Extension		09/08 - 08/2009
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Huibin Zhao, PhD 1993, CS Dept, Boston University Title: An Object-centered Data Model for Design Databases	(3^{rd} Reader)	09/91 - 05/1993
Paul Barford, PhD 2001, CS Dept, Boston University Title: Modeling, Measurement and Performance of World Wide Web Transact		09/98 - 06/2001
Loredana Lo Conte, PhD 2000, CS Dept, Boston University Title: Visible Volume: A Robust Measure for Protein Structure Characterizat.		09/95 - 01/2000
Marcus Peinado, PhD 1995, CS Dept, Boston University Title: Parallel and Randomized Approximation Algorithms for Maxclique and		09/92 - 05/1995
Marwan Shaban PhD 1994, CS Dept, Boston University Title: Preservation of Structure Sharing in Parse Forests	(Committee)	09/93 - 09/1994

Masters Thesis Supervision (Partial List)

Nate Soule MA 2012, CS Dept, Boston University Title: Safe Compositional Modeling And Analysis Of Constrained Flow New		09/10 - 12/2011
Elias Yannakeas MA 2011, CS Dept, Boston University Title: An Auction-Based Distributed Storage Marketplace	(Main Advisor)	09/09 - 01/2011
Sowmya Manjanatha, MA 2010, CS Dept, Boston University Title: Secure Localization of Wireless Networks	(Main Advisor)	01/06 - 05/2010
Mark Moses MA 2010, CS Dept, Boston University Title: Incentive-compatible Swarming Protocols for Real-Time Streaming	(Main Advisor)	09/08 - 05/2010
David Cecere MA 2007, CS Dept, Boston University Title: Distributed Continuous Join Queries on Multiple Data Streams	(Co-Advisor)	01/06 - 05/2007
Kanishka Gupta MA 2006, CS Dept, Boston University Title: Hierarchical Scheduling in Real-Time Systems	(Main Advisor)	09/03 - 8/2006
Ching Chang MA 2006, CS Dept, Boston University Title: Reference Locality in Data Stream Applications	(Co-Advisor)	09/05 - 06/2006
Chris Stevens MA 2005, CS Dept, Boston University Title: Caching in Peer-to-Peer Systems	(Main Advisor)	01/04 - 06/2005
Wang Tao MA 2004, CS Dept, Boston University Title: Streaming Media Delivery in Overlayed Peer-to-Peer Systems	(Main Advisor)	06/03 - 06/2004
Weichao Ma MA 2003, CS Dept, Boston University Title: Exploiting Locality of Reference in Routing of P2P Queries	(Main Advisor)	09/01 - 05/2003
Sumit Mehrotra MA 2001, CS Dept, Boston University Title: DNS-based Internet Client Clustering and Characterization	(Main Advisor)	01/99 - 06/2001
Stan Rost MA 2001, CS Dept, Boston University Title: A Digital-Fountain-based Architecture for Massively Accessed Web S	(Main Advisor)	01/99 - 06/2001
Enrique Duvois MA 2001, CS Dept, Boston University Title: A Java-based framework for replicating dynamic content in a CDN	(Main Advisor)	01/99 - 01/2001
Jaehey Yoon MA 2001, CS Dept, Boston University Title: SomeCast: A Paradigm for Real-Time Adaptive Reliable Multicast	(Main Advisor)	09/97 - 06/2001
Thomas Gschwendtner MA 2000, CS Dept, Boston University Title: A Linux implementation of novel aggregate congestion control protoc	(Main Advisor)	09/98 - 06/2000
Anna Karpovsky MA 2001, CS Dept, Boston University Title: DNS-based Load Characterization for CDN	(Main Advisor)	01/99 - 06/2001

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Naomi Katagai MA 1998, CS Dept, Boston University Title: Admission Control Policies for High-Performance Web Servers	(Main Advisor)	01/97 - 06/1998
Yukishiro Takahashi MA 1998, CS Dept, Boston University Title: Bandwidth Allocation Policies on ATM Networks	(Main Advisor)	01/97 - 06/1998
Alia Atlas MA 1997, CS Dept, Boston University Title: Statistical QoS for variable, periodic RT tasks	(Main Advisor)	09/95 - 12/1997
Guangdong Liao MA 1997, CS Dept, Boston University Title: Design and Implementation of a Distributed Web Advising System	(Main Advisor)	01/97 - 09/1997
Olivier Hartmann MA 1997, CS Dept, Boston University Title: Design and evaluation of aggregate congestion control protocols for T	(Main Advisor) CCP/IP	09/96 - 06/1997
Felix Kozodoy MA 1997, CS Dept, Boston University Title: Analysis of Prefetching based on Web user access patterns	(Main Advisor)	09/96 - 06/1997
Andrew McGeachie MA 1997, CS Dept, Boston University Title: Context-based Indexing of Web Images	(Main Advisor)	01/96 - 12/1997
Chien-ting Lin MA 1997, CS Dept, Boston University Title: Boston University Web-based Library Catalog	(Main Advisor)	09/96 - 01/1997
Mariya Kishenyuk MA 1996, CS Dept, Boston University Title: A Simulation Testbed for Broadcast Disks	(Main Advisor)	09/95 - 06/1996
Agnes Lee MA 1996, CS Dept, Boston University Title: Caching and Prefetching Algorithms for Broadcast Disks	(Main Advisor)	09/95 - 06/1996
Kyung-Suk Lhee MA 1995, CS Dept, Boston University <i>Title: A Threaded Cleopatra Simulator</i>	(Main Advisor)	09/94 - 06/1995
Martin Mroz MA 1995, CS Dept, Boston University Title: A Client-based Prefetching Implementation for the WWW	(Main Advisor)	09/94 - 06/1995
Yueh-Lin Liu MA 1995, CS Dept, Boston University Title: Simulation of Hardware Dynamic Scheduling for the DLX Architectu	(Main Advisor)	09/94 - 09/1995
Ron Ryan MA 1995, CS Dept, Boston University Title: A Graphical User Interface for the DLX Simulator	(Main Advisor)	09/94 - 09/1995
Patrick Cai MA 1995, CS Dept, Boston University Title: Object-Oriented Animation on the World Wide Web	(Main Advisor)	01/94 - 06/1995
Benjamin Mandler MA 1994, CS Dept, Boston University Title: A Testbed for Simulating Concurrency Control for RTDB Systems	(Main Advisor)	09/93 - 09/1994
Yevgeny Korsunsky MA 1994, CS Dept, Boston University Title: Simulation of Cache Coherence for Bus-based Systems	(Main Advisor)	09/93 - 09/1994
Dimitrios Spartiotis MA 1993, CS Dept, Boston University Title: Probabilistic Job Scheduling for Distributed Real-time Applications	(Main Advisor)	09/92 - 09/1993
Biao Wang MA 1993, CS Dept, Boston University Title: Multi-version Speculative Concurrency Control for Real-Time Database	(Main Advisor)	09/92 - 09/1993
Mohammad Makar MA 1994, CS Dept, Boston University Title: Design and Implementation of AIDA Network File System	(Co-Advisor)	09/93 - 08/1994
Nicholas Roosevelt MA 1994, CS Dept, Boston University Title: Implementation of Mermera on the CM-5	(2^{nd} Reader)	09/93 - 06/1994

Natalya Fridman MA 1992, CS Dept, Boston University Title: A Simulator for a Pipelined and Vector DLX Architecture (Main Advisor) 09/91 - 08/1992

PUBLICATIONS

Books, Theses, and Collections

- [1.B1] Azer Bestavros and Assaf Kfoury, editors. Practical and Lightweight Formal Methods for the Design, Modeling and Analysis of Software Systems (Special Issue of Mathematical Structures in Computer Science). Cambridge University Press, Oxford, UK, 2013. (250 pages) ISBN: N/A.
- [2.B2] Benyuan Liu, Azer Bestavros, Ding-Zhu Du, and Jie Wang, editors. Wireless Algorithms, Systems, and Applications. Lecture Notes in Computer Science, Springer, Germany, 2009. (594 pages) ISBN: 978-3-642-03416-9.
- [3.B3] Azer Bestavros and Michael Rabinovich, editors. Web Caching and Content Delivery. Elsevier, 2001. (330 pages).
- [4.B4] Azer Bestavros and Frank Mueller, editors. Languages, Compilers, and Tools for Embedded Systems. Lecture Notes in Computer Science, Springer, Amsterdam, 1998. (265 pages) ISBN: 978-3-540-65075-1.
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- [6.B6] Azer Bestavros, Kwei-Jay Lin, and Sang Son, editors. Real-Time Database Systems: Issues and Applications. Kluwer Academic Publishers, Norwell, Massachusetts, 1996. (368 pages).
- [7.B7] Azer Bestavros, editor. ACM SIGMOD Record: Special Issue on Real-Time Databases 25(1). ACM Press, March 1996.
- [8.B8] Azer Bestavros. Time-constrained Reactive Automata: A Novel Development Methodology for Embedded Real-Time Systems. PhD thesis, Harvard University, Division of Applied Sciences (Department of Computer Science), Cambridge, Massachusetts, September 1991.
- [9.B9] Azer Bestavros. Self Diagnosis in Distributed Fault Tolerant Computing Systems. Master's thesis, Alexandria University, School of Engineering, Department of Computer Science, Alexandria, Egypt, April 1987.

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- [10.J1] Azer Bestavros and Orran Krieger. Towards an open cloud marketplace: Vision and first steps. *IEEE Internet Computing: View from the Cloud*, January 2014.
- [11.J2] Nikolaos Laoutaris, Georgios Smaragdakis, Konstantinos Oikonomou, Ioannis Stavrakakis, and Azer Bestavros. Distributed Server Migration for Scalable Internet Service Deployment. *IEEE/ACM Transactions on Networking*, (), 2013.
- [12.J3] Pietro Michiardi, Damiano Carra, Francesco Albanese, and Azer Bestavros. Peer-assisted Content Distribution on a Budget. The Computer Networks Journal (COMNET): The International Journal of Computer and Telecommunications Networking, 56(7):2038–2048, May 2012.
- [13.J4] Jorge Londono, Azer Bestavros, and Nikolaos Laoutaris. Trade and Cap: A Customer-Managed, Market-Based System for Trading Bandwidth Allowances at a Shared Link. *The Computer Networks Journal (COMNET): The International Journal of Computer and Telecommunications Networking*, 55(2011):3959–3974, September 2011.
- [14.J5] Georgios Smaragdakis, Nikolaos Laoutaris, Vassilis Lekakis, Azer Bestavros, John W. Byers, and Mema Roussopoulos. Selfish Overlay Network Creation and Maintenance. *IEEE/ACM Transactions on Networking*, 19(6):1624–1637, December 2011.
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Tutorials and Invited Presentations

- [202.T1] Azer Bestavros. The Open Cloud Exchange. Plenary Talk at the BBN GENI Winter Training Camp, January 2014.
- [203.T2] Azer Bestavros. Society and Technology: Internet Tussles. Guest Lecture in BU/CAS-SOC277: Technology, Society, and Public Policy, February 2013.
- [204.T3] Azer Bestavros. Modeling and Analysis of Web and Social Network Graphs. Guest Lecture in the BU ARTEMIS Program, August 2013.
- [205.T4] Azer Bestavros. Society and Technology: Internet Tussles. Guest Lecture in BU/CAS-SOC277: Technology, Society, and Public Policy, September 2013.
- [206.T5] Azer Bestavros. Big Data as a Driver of Cyber-Enabled Discovery and Innovation. BU Green House Workshop on Big Data, February 2013.
- [207.T6] Azer Bestavros. Modeling and Analysis of Web and Social Network Graphs. Guest Lecture in the BU ARTEMIS Program, August 2012.
- [208.T7] Azer Bestavros. Tussles in Cyberspace. Guest Lecture in BU/CAS-SOC277: Technology, Society, and Public Policy, February 2012.
- [209.T8] Azer Bestavros. Mobility Coordination for Improved Ad-Hoc Routing and Field Coverage. Plenary Talk at the INFORMS Northeastern Regional Conference, May 2011.
- [210.T9] Azer Bestavros. Graphs as Web and Social Network Models. Guest Lecture in the BU ARTEMIS Program, August 2011.
- [211.T10] Azer Bestavros. Tussles in Cyberspace. Guest Lecture in BU/CAS-SOC277: Technology, Society, and Public Policy, February 2010.

- [212.T11] Azer Bestavros. Cyber-Terrorism/Warfare The Emergent Threat: Strategies for Survival. BU Discoveries Series Panel on Cyber Warfare, November 2009.
- [213.T12] Azer Bestavros. snBench: Virtualization and Programming Support for Video Sensor Networks. Plenary talk at the ONR/ARO/NSF Interdisciplinary Workshop on Distributed Video Sensor Networks, May 2009.
- [214.T13] Azer Bestavros. Programming Support for Embedded Sensor Networks. Plenary talk at the Workshop On High Confidence Medical Devices, Software, and Systems (HCMDSS) and Medical Device Plugand-Play (MD PnP) Interoperability, July 2007.
- [215.T14] Azer Bestavros. Compositional Development and Verification of Distributed Embedded Systems. Plenary talk at the Workshop on Aviation Software Systems, June 2006.
- [216.T15] Azer Bestavros. Deconstructing the Current Models of CS publications. Plenary Talk at CRA 2006 Snowbird Conference, June 2006.
- [217.T16] Azer Bestavros. Caching Architectures for Scalable Streaming Media Delivery. Plenary Talk at ACM Workshop on Caching, Coherence, and Consistency, Columbia University, NY, June 2002.
- [218.T17] Azer Bestavros. Real-Time Database Technology and the Internet. Panelist at the 1997 International Workshop on Real-Time Databases, Burlington, Vermont, September 1997.
- [219.T18] Azer Bestavros. On the Platform for Privacy Preferences Standard. Panelist at the Inaugural Meeting of the World-Wide Web Consortium (W3C) Working Group on P3 Internet Architecture, MIT, Cambridge, MA, June 1997.
- [220.T19] Azer Bestavros and Stanley Sclaroff. Research Infrastructure for Parallel and Distributed Systems at Boston University: Real-Time, Multimedia, and High-Performance Networking and Computing. Invited presentation at NSF Infrastructure'97: A Workshop for the Principal Investigators of NSF/CISE Infrastructure Awards, Lexington, Kentucky, May 1997.
- [221.T20] Azer Bestavros and Mark Crovella. Tutorial on Performance Characteristics of WWW Information Systems. ACM Sigmetrics'98: Conference on Measurement and Modeling of Computer Systems, Wisconsin, June 1998.
- [222.T21] Azer Bestavros and Mark Crovella. Tutorial on Performance Characteristics of WWW Information Systems. ACM Sigmetrics'97: Conference on Measurement and Modeling of Computer Systems, Seattle, WA, June 1997.
- [223.T22] Azer Bestavros. Concepts of Real-Time Computing and Communications. Mariner Tutorial Series, November 9 1996.
- [224.T23] Azer Bestavros. Tutorial on Middleware Services for the World Wide Web. IEEE Engineering Solutions Conference, Boston, MA, September 11 1996.
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Editorials and Other Publications

- [227.U1] Evimaria Terzi, Azer Bestavros, Dora Erdos, and Vatche Ishakian. Towards Generalized Centrality Measures with Applications to Information Networks. NSF Workshop on Social Networking and Mobility in the Cloud, February 2012.
- [228.U2] Benyuan Liu, Azer Bestavros, Ding-Zhu Du, and Jie Wang. Editorial on Research Advances in Wireless Algorithms, Systems, and Applications. EURASIP Journal on Wireless Communications and Networking, August 2010.

- [229.U3] Rick Schantz, Jake Beal, Joe Loyall, Partha Pal, Kurt Rohloff, and Azer Bestavros. Research Challenges in Information Systems for the Next Generation Electric Grid. NITRD Workshop on New Research Directions for Future Cyber-Physical Energy Systems, June 2009.
- [230.U4] Azer Bestavros. Workshop on the instrumentation needs of cise research (presentation of final recommendations), 2008. Presented at CRA Snowbird'08 COnference and available from http://archive.cra.org/Activities/snowbird/2008/slides/bestavros.instrumentation.pdf.
- [231.U5] Azer Bestavros. Towards Safe and Scalable Compositional Analysis and Programming. Position Statement at NSF Workshop on High-Confidence Software Systems, October 2006.
- [232.U6] Azer Bestavros. If GENI is a Programmable Architecture then What (Real-Time) Instruction Set Architecture should GENI have? Position Statement at NSF Workshop on Real-Time GENI, February 2006.
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- [248.U22] Azer Bestavros. Parallel Computing: From Architectures to Programming Languages. An Invited Presentation to the BU/NSF High Performance Computing Workshop for Educators, May 1994.
- [249.U23] Azer Bestavros. Speculative Concurrency Control: On Being Neither Optimistic Nor Pessimistic. A Position Statement in IEEE RTOSS'92: Panel on Real-Time Databases, June 1992.
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PATENT AND INTELLECTUAL PROPERTY CONSULTING EXPERIENCE

Expert Witness for Fish & Richardson, P.C., Washington, DC	05/14 - present
Patent Infringment Litigations representing Citrix (vs. 01 Communique)	00/11
Expert Witness for Wilson Sonsini Goodrich & Rosati, P.C. Los Angeles, CA Patent Infringment Litigations representing Blue Coat, Inc. (vs. Finjan, Inc.)	02/14 - present
Expert Witness for Holland & Knight LLP Boston, MA Patent Infringment Litigations representing CA Technologies, Inc. (vs. Clouding IP, LLC)	05/14 - present
Expert Witness for Wolf, Greenfield & Sacks, P.C, Boston, MA ITC Litigations representing Sony Corporation (vs. Straight Path IP Group)	01/14 - 06/2014
Expert Witness for Kasowitz, Benson, Torres & Friedman LLP, Atlanta, GA Patent Infringment Litigations representing Cox Communications (vs. DN Lookup Tech)	09/12 - 07/2013
Expert Witness for Alston & Bird LLP, Charlotte, NC Patent Infringment Litigations representing Nokia Corp. (vs. HTC Corp.)	06/12 - 12/2012
Expert Witness in Jury Trial for Orrick, Herrington & Sutcliffe LLP, Menlo Park, CA Patent Infringment Litigations representing Brocade (vs. A10 Networks)	06/11 - 08/2012
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Expert Witness for Duane Morris, LLP, New York, NY Copyright Infringment Litigations involving MP3tunes and Capitol Records.	01/10 - 09/2011
Consultant for Alston & Bird LLP, Charlotte, NC Patent Infringment Litigations involving Nokia Corp.	04/11 - 06/2011
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Consultant for Fish & Richardson P.C., Boston, MA Network Measurement and Server Log Analysis Practices and Literature.	05/06 - 01/2008
Consultant for Lowrie, Lando & Anastasi, LLP, Cambridge, MA Compression Technologies for Network Communication Protocols and Architectures.	06/07 - 08/2007
Expert Witness for Fein & O'Connor, P.C., Philadelphia, PA RIAA Copyright Infringement Litigations.	07/07 - 08/2007
Expert Witness for Banner & Witcoff, Ltd., Boston, MA Patent Infringment/Invalidity Litigations representing RealNetworks (vs. Ethos Technologies)	03/03 - 12/2006
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Expert Witness for Choate, Hall & Stewart, Boston, MA Patent Infringment/Invalidity Litigations representing Akamai (vs. Speedera)	04/04 - 04/2005
Consultant for Hughes & Luce, LLP, Dallas, TX Software Industry Copyright and Reverse Engineering Practices.	09/04 - 03/2005
Consultant for Mintz Levin Cohn Ferris Glovsky and Popeo P.C., Boston, MA Software Copyright and Plagiarism Litigations	03/04 - 10/2004
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 $\begin{array}{c} \textbf{Consultant} \ \text{for Finnegan, Henderson, Farabow \& Garrett Ltd, Washington, DC} \\ \textbf{\textit{Litigations involving Internet software practices representing American Airlines (vs. Saber Inc.)} \end{array}$

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