

MICHAEL GOLDWEBER

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EDUCATION:

Dartmouth College, Hanover, N.H.
Ph.D. Computer Science: June 1993 1986 - 1990
Thesis: Replication in Highly Available Distributed Systems.
Advisor: Donald B. Johnson, Professor of Computer Science and Mathematics

Dartmouth College, Hanover, N.H.
M.A. Computer Science: June 1993 1986 - 1990

Boston University, Boston, MA.
B.A. (summa cum laude) Mathematics-Computer Science: May 1982 1978 - 1982

Boston University, Boston, MA.
B.S.B.A. (summa cum laude) Finance: May 1982 1978 - 1982

Other Education:

W.U.J.S. Institute, Arad, Israel.
Non-degree graduate overseas study program. 1985 - 1986

ACADEMIC EXPERIENCE:

Sabbatical Appointments:

Spring 2009

Visiting Professor of Computer Science, Semester at Sea (SAS)/University of Virginia Faculty member as part of a undergraduate study abroad program, where students reside aboard ship as part of a four month journey visiting 14 countries. Taught courses in both mathematics and computer science in addition to leading in-country field trips related to course offerings.

Spring 2004

Visiting Researcher in Computer Science, University of Bologna, Bologna, Italy Working with the creators of MPS, designed and developed μ MPS a hardware simulator to support the undergraduate operating systems course and Kaya, a semester-long project based on μ MPS. Also authored the accompanying Student Guide.

Fall 2003

Visiting Professor of Computing, UNITEC, Auckland, New Zealand. One semester at

UNITEC as part of a faculty exchange program. Taught two courses, assisted in the supervision of some master's students and participated as an assessor in UNITEC's professional doctorate program. Also participated in numerous curricular development activities including the development of a new entry level master's course.

Permanent Appointments:

1999-present

Professor of Computer Science, (09-present), Xavier University, Cincinnati, Ohio.

Associate Professor of Computer Science, (99-09). Teaching responsibilities cover all areas of the undergraduate CS curriculum; primarily focusing on the systems courses (operating systems, database systems, etc.) and the introductory sequence (CS1 – CS3). As one member of a three person program, involved in all aspects of running a successful undergraduate CS major; including extensive curriculum development and the overseeing of mandatory student senior projects. In addition to departmental committee work, perform duties as coach of Xavier's ACM Programming Contest teams.

1994 - 99

Associate Professor of Computer Science, (98-99), Beloit College, Beloit, WI.

Assistant Professor of Computer Science, (94-98). Teaching responsibilities cover all areas of the undergraduate CS curriculum; primarily focusing on the systems courses (operating systems, database systems, etc.) and the introductory sequence (CS1 – CS3). As one member of a two person program, involved in all aspects of running a successful undergraduate CS major; including extensive curriculum development and the overseeing of mandatory student senior theses/research projects. In addition to College wide committee work, perform duties as faculty advisor to a student organization (Am Israel), and coach of Beloit's ACM Programming Contest teams.

1992 - 1994

Assistant Professor of Computer Science, Ithaca College, Ithaca, N.Y. Teaching responsibilities cover all areas of the undergraduate CS curriculum with special emphasis in the areas of operating systems, computer networks and computer literacy. Also involved in the restructuring of the CS curriculum and development of interactive multimedia teaching aids.

1990 - 1992

Visiting Assistant Professor of Computer Science, University of Vermont, Burlington, Vt. Responsibilities included teaching courses for both the undergraduate and graduate programs in the areas of operating systems, distributed systems, computer networks, and data structures/algorithms, as well as supervising masters students. Organized UVM's Virtual Distributed Shared Memory Research Group. Performed additional duties as the faculty advisor to a student organization (The Jewish Action Coalition).

1979 - 1981

Instructor, Boston University/Metropolitan College, Boston, MA. Taught introductory assembler and structured language programming for the university's evening commuter stu-

dent program (part-time).

1979 - 1981

Teaching Assistant, Boston University, Boston, MA. Graded all course work and provided individualized student assistance for classes ranging from the introductory level, through graduate level operating system design courses (part-time).

INDUSTRY EXPERIENCE:

1984 - 1985

Systems Consultant, Systemation Inc., Cleveland, Ohio. Outside consultant acting as database administrator and lead analyst for the design and implementation of an on-line financial management system, based around a relational database machine at a large international law firm. Duties also included component selection/evaluation, design and implementation of the communications network, and writing of system documentation.

1983 - 1984

DSS/Database consultant, Applied Data Research, Cleveland, Ohio. Technical sales support representative for IBM based systems software vendor, marketing relational database and decision support systems. Responsible for providing technical assistance during the pre-sale phase as well as local support and education/training to existing clients in the south and midwest sectors of the U.S.

1982 - 1983

Account Manager, Ecotran Corp., Cleveland, Ohio. Technical liaison to the client base for a local service bureau offering engineering, relational database and financial forecasting services on UNIVAC and DEC mainframes. Duties involved custom programming, user education and customer support.

1980 - 1982

System Design Consultant, Organizational Dynamics Inc., Burlington, MA. Designed, constructed and maintained an individualized managerial information system; also involved in performance and feasibility evaluations (part-time).

OTHER EXPERIENCE:

1993 - present

Bicycle Tour Leader, BikeCentennial/Adventure Cycling, Beloit College Alumni Bicycle Tours. Leader for small group supported and unsupported bicycle tours. Unsupported tours in the Canadian Rockies and Alaska for BikeCentennial/Adventure Cycling. Created and led supported Inn-to-Inn tours for the Beloit College Alumni Bicycle Tours Program.

PUBLICATIONS:

Texts:

Virtual Square: Users, Programmers & Developers Guide. Renzo Davoli and Michael Goldweber. Published 2011. See: <http://stores.lulu.com/VirtualSquareLab>.

μMPS2 Principles of Operation. Michael Goldweber and Renzo Davoli. Published 2011.

See: <http://stores.lulu.com/VirtualSquareLab>.
(μ MPS Principles of Operation, Published 2005/Revised 2009)

Student Guide to the Kaya Operating System Project. Michael Goldweber and Renzo Davoli. Published 2005/Revised 2009, 2011.

See: <http://stores.lulu.com/VirtualSquareLab>.

Journal & “Technical Magazine” Articles:

TauRUs: A Taulbee Survey For the Rest of Us. Michael Goldweber. ACM Inroads, Volume 2, Number 2, 2011.

Enhancing the Social Issues Components in our Computing Curriculum: Computing for the Social Good. Michael Goldweber, Joyce C. Little, Gerry Cross, Renzo Davoli, Charles Riedesel, Brian von Konsky, and Henry Walker. ACM Inroads, Volume 2, Number 1, 2011.

Reviewing the SIGCSE Reviewing Process. Amruth Kumar, Michael Goldweber, Patricia Joseph and Paul Wagner. SIGCSE Bulletin-inroads, volume 40, number 2, 2008.

A Report on the Use of HyperTalk in CS1 Within a Liberal Arts Setting. Michael Goldweber. SIGCSE Bulletin-inroads, volume 31, number 2, 1999.

Papers at Refereed Conferences:

A Day One Activity for a Computing for the Social Good Oriented Curriculum. Michael Goldweber. Submitted to the 17th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE '12).

Supporting Operating Systems Projects using the μ MPS2 Hardware Simulator. Michael Goldweber, Renzo Davoli, and Tomislav Jonjic. To be submitted to the 17th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE '12).

Msocket: Multiple Stack Support for the Berkeley Socket API. Renzo Davoli and Michael Goldweber. To be presented at the 27th Symposium on Applied Computing (SAC '12).

Two Kinesthetic Learning Activities: Turing Machines and Basic Computer Organization. Michael Goldweber. Proceedings of the 16th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE '11).

View-OS: Change your View on Virtualization. Renzo Davoli and Michael Goldweber. Proceedings of the 16th International Linux System Technology Conference (Linux-Kongress '09).

VDE - An Emulation Environment for Supporting Computer Networking Courses. Michael Goldweber and Renzo Davoli. Proceedings of the 13th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE '08).

View-OS: A New Unifying approach Against The Global View Assumption. Ludovico Gardenghi, Michael Goldweber, and Renzo Davoli. Proceedings of the 2008 International Conference on Computational Science (ICCS '08) -Springer Berlin, Lecture Notes in Com-

puter Science, Vol 5101-5103.

Environments for a Networking Laboratory. Morgan Conbere, Michael Erlinger, Renzo Davoli, and Michael Goldweber. Proceedings of the 20th Annual Conference of the National Advisory Committee on Computing Qualifications (NACCQ 2007).

Virtual Square (V^2) in Computer Science Education. Renzo Davoli and Michael Goldweber. Proceedings of the 10th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE '05).

The Kaya OS Project and the μ MPS Hardware Simulator. Michael Goldweber, Renzo Davoli, and Mauro Morsiani. Proceedings of the 10th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE '05).

Fostering a Creative Interest in Computer Science. Gary Lewandowski, Elizabeth Johnson, and Michael Goldweber. Proceedings of the 36th SIGCSE Technical Symposium on Computer Science Education (SIGCSE '05).

New Directions in Operating Systems Courses Using Hardware Simulators. Renzo Davoli and Michael Goldweber. Proceedings of SCS International Conference on Simulation and Multimedia in Engineering Education (ICSEE'03/WMC'03).

A Road Map for Teaching Introductory Programming Using LEGO Mindstorms Robots. Pamela Lawhead, Constance Bland, David Barnes, Michaele Duncan, Michael Goldweber, Ralph Hollingsworth, and Madeleine Schep. Proceedings of the 7th Annual Conference on Integrating Technology into Computer Science Education (ITiCSE '02).

Resources for Instructors of Capstone Courses in Computing. Tony Clear, Frank Young, Michael Goldweber, Paul Leidig, Kirk Scott. Proceedings of the 6th Annual Conference on Integrating Technology into Computer Science Education (ITiCSE '01).

Non-Programming Resources for an Introduction to CS: A collection of resources for the first courses in Computer Science. Joseph Bergin, Myles McNally, Michael Goldweber, Stephen Hartley, Charles Kelemen, Tom Naps, Chris Power. Proceedings of the 5th Annual Conference on Integrating Technology into Computer Science Education (ITiCSE '00).

Developing a Digital Library of Computer Science Teaching Resources. Scott Grissom, Deborah Knox, Elana Cooperman, Wanda Dann, Michael Goldweber, Janet Hartman, Marja Kuittinen, David Mutchler, and Nick Parlante. Proceedings of the 3rd Annual Conference on the Teaching of Computing/3rd Annual Conference on Integrating Technology into Computer Science Education (ITiCSE '98).

Historical Perspectives on the Computing Curricula. Michael Goldweber, John Impagliazzo, Iouri A. Bogoiavlenski, A. (Tony) Clear, Gordon Davies, Hans Flack, J. Paul Myers, and Richard Rasala. Working Group Reports and Supplemental Proceedings of the 2nd Annual Conference on Integrating Technology into Computer Science Education Conference, 1997.

An Overview of Visualization: Its Use and Design. Tom Naps, Joe Bergin, Ken Brodlie, Michael Goldweber, Ricardo Jimenez-Peris, Sami Khuri, Marta Martinez, Myles McNally, Susan Rodger, and Judith Wilson. Proceedings of the 1st Conference on Integrating Technology into Computer Science Education (ITiCSE '96).

Minimizing Access Costs in Replicated Distributed Systems. Michael Goldweber and Donald B. Johnson. Proceedings of the 15th Annual ACM Symposium on Principles of Distributed Computing, 1996.

A Multi-Paradigm Approach to Teaching Computer Science I. John Barr, Michael Goldweber, and Chuck Leska. Proceedings of the 1994 Small College Computing Symposium.

A New Perspective on Teaching Computer Literacy. Michael Goldweber, John Barr, and Chuck Leska. Proceedings of the 25th SIGCSE Technical Symposium on Computer Science Education (SIGCSE '94).

Posters at Refereed Conferences:

Computing for the Social Good: A Service Learning Project. Michael Goldweber. 16th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE '11).

Educational Uses for VDE. Michael Goldweber and Renzo Davoli. 38th SIGCSE Technical Symposium on Computer Science Education (SIGCSE '07).

UMview: View-OS implemented as a System Call Virtual Machine. Renzo Davoli, Michael Goldweber, and Ludovico Gardenghi. 7th USENIX Symposium on Operating Systems Design and Implementation (OSDI '06).

View-OS: A process with a View. Renzo Davoli and Michael Goldweber. Eurosys 2006; Leuven, Belgium, April 2006.

Proposal for an On-Line Computer Science Courseware Review. Michael Goldweber. 1st Conference on Integrating Technology into Computer Science Education (ITiCSE '96).

Technical Reports:

A Bound on Data Availability when Networks Partition. Michael Goldweber and Donald B. Johnson. Technical Report PCS-TR90-145, Dartmouth College, 1990.

A Comparison of Consistency Control Protocols. Michael Goldweber, Donald B. Johnson, and Larry Raab. Technical Report PCS-TR89-141, Dartmouth College, 1989.

Invited Columns:

When Too Much Is Not Enough. Michael Goldweber. Bulletin of Applied Computing and Information Technology, volume 2, number 2, 2004.

INVITED TALKS:

So, When Is Easter?. Michael Goldweber. Annual Phi Beta Kappa Lecture: Delivered March 22, 2011. Xavier University, Cincinnati, Ohio.

Computing for the Social Good. Michael Goldweber. 2011 CITRENTZ Keynote Address: Delivered July 6, 2011. Rotorua, New Zealand.

WORKING GROUPS:

- ITiCSE'10 Working Group on Computing for the Social Good. Michael Goldweber and Joyce Currie Little; co-chairs. Ankara, Turkey. June 26-30, 2010.
- ITiCSE'02 Working Group on LEGO Mindstorms. Pamela Lawhead and Constance Bland; co-chairs. Aarhus, Denmark. June 22-26, 2002.
- ITiCSE'01 Working Group on Resources for Instructors of Capstone Courses in Computing. Tony Clear and Frank Young; Co-chairs. Canterbury, England. June 24-28, 2001.
- ITiCSE'00 Working Group on Non-Programming Resources for an Introduction to CS. Joe Bergin and Myles McNally; Co-chairs. Helsinki, Finland. July 10-14, 2000.
- ITiCSE'98 Working Group on The Online Computer Science Teaching Center. Scott Grissom and Deborah Knox; Co-chairs. Dublin, Ireland. August 16-21, 1998.
- ITiCSE'97 Working Group on Historical Perspectives in Computing Education. Michael Goldweber and John Impagliazzo; Co-chairs. Upsalla, Sweden. June 1-5, 1997.
- ITiCSE'96 Working Group on Visualization: Its Use and Design. Tom Naps (Chair), Michael Goldweber (Rapporteur). Barcelona, Spain. May 31-June 4, 1996.

WORKSHOPS:

Facilitating Student Written Operating Systems in the Undergraduate OS Course. Michael Goldweber and Renzo Davoli. 36th SIGCSE Technical Symposium on Computer Science Education, 2005.

TUTORIALS:

Enhancing the Operating Systems Course Using the MPS or CHIP Hardware Simulator. Michael Goldweber. CCSC:Midwest '00; October 6-7, 2000.

PANELS/SPECIAL SESSIONS:

A Taulbee Report for the Rest of Us. Michael Goldweber. 41st ACM Technical Symposium on Computer Science Education (SIGCSE '10).

What Everyone Needs to Know About Computation. John Barr, Stephen Cooper, Michael Goldweber - Author and moderator, and Henry Walker. 41st ACM Technical Symposium on Computer Science Education (SIGCSE '10).

The Great European Debate: Scrambling for Students; Our Degrees are Sexier than Yours!. Arnold Pears and Michael Goldweber. 13th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE '08).

Day One of the Objects-First First Course: What To Do. Joe Bergin - Author and moderator, Mike Clancy, Don Slater, Michael Goldweber, and David Levine. 38th ACM Technical Symposium on Computer Science Education (SIGCSE '07).

Do LEGO MindStorms Robots have a Future in CS Education?. Myles McNally - Author and moderator, Michael Goldweber, Barry Fagin, and Frank Klassner. 37th ACM Technical Symposium on Computer Science Education (SIGCSE '06).

A Comparison of Different Approaches to the Introductory Programming Course. Michael Goldweber - Author and moderator, Joe Bergin, Raymond Lister, and Myles McNally. 8th Australasian Computing Education Conference (ACE '06) - Volume 52 in the Conferences in Research and Practice in Information Technology Series.

Teaching Polymorphism Early. Joe Bergin - Author and moderator, Michael E. Caspersen, Michael Kölling, and Michael Goldweber. 10th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE '05).

The Relationship Between CS Education Research and the SIGCSE Community. Michael Goldweber - Author and moderator, Martyn Clark, Sally Fincher, and Arnold Pears. 9th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE '04).

The Relationship Between CS Education Research and the SIGCSE Community. Michael Goldweber - Author and moderator, Martyn Clark, and Sally Fincher. 35th ACM Technical Symposium on Computer Science Education (SIGCSE '04).

LEGOS, Java, Programming Assignments and CS 1. Pamela Lawhead, Constance Bland, David Barnes, Michaele Duncan, Michael Goldweber, and Madeleine Schep. 34th ACM Technical Symposium on Computer Science Education (SIGCSE '03).

The Use of Robots in the Undergraduate Curriculum: Experience Reports. Michael Goldweber - Author and moderator, Clare Congdon, Barry Fagin, Deborah Hwang, and Frank Klassner. 32nd ACM Technical Symposium on Computer Science Education (SIGCSE '01).

A Comparison of Operating Systems Courseware. Michael Goldweber - Author and moderator, John Barr, Tracy Camp, John Graham, and Stephen Hartley. 30th ACM Technical Symposium on Computer Science Education (SIGCSE '99).

COURSEWARE:

μ MPS. Michael Goldweber, Renzo Davoli, and Mauro Morsiani. A simplification of the MPS hardware simulator targeted towards the undergraduate audience. Used to support undergraduate operating systems development, 2004.

μ MPS2 is a multiprocessor extension of μ MPS created by Tomislav Jonjic in 2011.

Assist V/370. Michael Goldweber. Enhancement of the Assist V system into an IBM S/370 hardware simulator. Used to support undergraduate operating systems development.

Boston University, 1982.

GRANTS:

External Grants:

A Taulbee Report for the Rest of Us. Michael Goldweber. ACM SIGCSE. Special Projects Grant Program; 2008.

With Jodi Tims and Susan Williams, this project has continued funding from both ACM SIGCSE and CRA-E.

Development Materials for Using μ MPS in the Undergraduate Curriculum. Michael Goldweber. NSF CCLI-EMD Grant ID #0341003; 2004-2005.

Acquisition of Wireless, Beowulf, and Distributed Computing Clusters. Gary Lewandowski, Michael Goldweber, and Elizabeth Johnson, Co-PI's. NSF MRI/RUI grant #0215836; 2002-2004.

Incorporating Hands-On Exploration Throughout the Computer Science Curriculum. Gary Lewandowski and Elizabeth Johnson, Co-PI's. Michael Goldweber, Senior personnel. NSF CCLI-A&I grant #9952548; 2000-2002.

Internal Grants:

Service Learning in Computing. Michael Goldweber. Xavier University Conway Institute: Conway Fellowship, Summer and Fall 2011.

Service Learning for Introductory Computing Students. Michael Goldweber. Xavier University Conway Institute: Educating for Justice (2010-2011).

VDE Educational Materials. Michael Goldweber. Xavier University Sabbatical/Faculty Development Grant, Spring 2009.

μ MPS. Michael Goldweber. Xavier University Sabbatical/Faculty Development Grant, Spring 2004.

Using Robots in Introductory Computer Science. Michael Goldweber and Elizabeth Johnson. Xavier University Wheeler Grant, summer 2001.

Access Costs in Distributed Systems. Michael Goldweber. Xavier University Summer Research Fellowship; 2000.

Hypermedia Course Materials Creation Tools. Michael Goldweber. Beloit College Keefer Grant; 1995-1996.

COMMUNITY SERVICE:

Conference Work:

Proceedings Editor. ITiCSE'13 - The 18th Annual Conference on Innovation and Technology in Computer Science Education, Canterbury, England, June 2013.

Proceedings Editor. ITiCSE'12 - The 17th Annual Conference on Innovation and Technology in Computer Science Education, Haifa, Israel, July 2012.

Proceedings Editor. ITiCSE'11 - The 16th Annual Conference on Innovation and Technology in Computer Science Education, Darmstadt, Germany, June 2011.

Associate Program Chair. SIGCSE'11 - The 42nd SIGCSE Technical Symposium on Computer Science Education, Dallas, TX, March 2011.

Proceedings Editor. ITiCSE'10 - The 15th Annual Conference on Innovation and Technology in Computer Science Education, Ankara, Turkey, June 2010.

Associate Program Chair. SIGCSE'09 - The 40th SIGCSE Technical Symposium on Computer Science Education, Chattanooga, TN, March 2009.

ACM Inroads: Editorial Advisory Board Member. 2008-?.

SIGCSE ITiCSE Site Selection Coordinator. 2008-?.

Proceedings Editor. ITiCSE'08 - The 13th Annual Conference on Innovation and Technology in Computer Science Education, Madrid, Spain, June 2008.

Program Co-chair. ITiCSE'06 - The 11th Annual Conference on Innovation and Technology in Computer Science Education, Bologna, Italy, June 2006.

Working Groups Coordinator. ITiCSE'03 - The 8th Annual Conference on Innovation and Technology in Computer Science Education, Thessaloniki, Greece, June 30 – July 2, 2003.

Manuscripts Reviewed For:

SIGCSE, ITiCSE, NECC (National Educational Computing Conference), and INFOCOM SAICSIT, ComSIS (Computer Science and Information Systems), COMAP, JERIC, ACM Transactions on Computer Systems, Computer Science Education Journal, and the Journal of Information Science

Addison-Wesley, Prentice Hall, Thompson, Wiley and Sons, CRC Press, Taylor and Francis, and McGraw Hill

PROFESSIONAL AFFILIATIONS:

Association of Computing Machinery (ACM):

general affiliation and the Computer Science Education SIG (SIGCSE)

Honor Societies: Phi Beta Kappa, Beta Gamma Sigma, Pi Mu Epsilon

HONORS & AWARDS:

Chase Manhattan Scholar: 1987-1990.

Degree with Distinction (Mathematics).

Dean's List all semesters (both B.A's).

Leadership award from the Men's Club of America.

PERSONAL:

Spouse: Mindy Kay Liebert

Dependents: Eli David Goldweber (DOB: 8/21/95)

Other Dependents: 1 Australian Shepherd (“Sadie”)

Location and Year of Birth: Cleveland, Ohio; 1960

Home Address: 9560 Ross Ave., Montgomery, OH 45242, (513) 891-6402

Citizenship: U.S.A.

INTERESTS:

Bicycling, badminton, reading, folkdancing, cross-country skiing