

Stephen Houser



<http://about.me/stephenhouser>

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Primary Skills:

- Information and Technology project and staff management, software and hardware design, development, and computing in higher education.
- Development and deployment team management (C/C++, Java, Assembler, Perl, and many more).
- Database administration (Oracle, Microsoft SQL Server).
- Network design and administration (TCP/IP, Ethernet and others).
- Teaching a variety of practical computer science materials; programming, operating system design, data networks, and robotics at the senior and graduate level.
- Mentoring students in independent study and masters thesis projects.

Professional Experience:

April 2013 - Present, University of Southern Maine

Executive Director for Information Technology

Senior Information and Technology leader for University of Southern Maine. Responsible for all information and technology operations at the University.

Achievements

- Assume responsibility for Telecommunications and Instructional Technology and Media Services.
- Restructuring under new University of Maine System-wide Information and Technology organization.
- Senior IT Leader for University of Southern Maine, replacing exiting CIO.

January 2009 - March 2013, University of Southern Maine

Executive Director for Computing Services

Leadership of all computing related services at the University; including Network Services, Database and Application Development, Helpdesk, Labs and Classrooms, Computer Sales (retail and internal), and Repair services.

Achievements:

- Developed and executed strategic cost cutting plans during economic downturn with minimal negative effects on student and staff services. Reduced budget by 5% while still embarking on strategic growth.
- Successfully merged current departments with 2 additional direct reports and 15 additional staff into single Computing Services organization.

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- Oversaw successful implementation of security tightening and deployment of virtual private network (VPN) and other tools.
- Implement strategic goal and project oriented work plans for staff of approximately 40 professionals, 10-20 students.

January 1993 - Present, Independent Software Developer and Consultant
Development and consultation including coding, children's games, operating system device drivers, and on-site training workshops.

Recent Achievements:

- 25 Years of Architalx: Voices of Design. An interactive iPad application to control audio portals as part of interactive exhibit at the Portland Museum of Art (February 2 to May 19, 2013).
 - Architalx: www.architalx.org,
 - Portland Museum of Art: <http://www.portlandmuseum.org/>
- The United States iPad application. An iPad application designed for learning the United States of America's states, capitals, cities, and other information. Released April 2012. stephenhouser.com/products/the-united-states
- Good Turn iPhone application released. A free iOS (iPhone and iPod) application for Boy Scouts to track their daily good turns. Released October 2010. stephenhouser.com/products/good-turn

July 2006 – December 2008, University of Southern Maine,

Director of IT Network Services and Database and Application Support

A "working director" position that includes direct oversight of 5 employees (associate director, assistant director, two managers, and clerical staff) and indirect management of approximately 20 technology employees. Direct/Indirect management of:

- Campus Computer Store – retail and internal computer/technology sales.
- Technical Services – in-house technology repair center.
- Network Services – central University data networking and operations
- Database and Application Support – central University software development and web-support center
- Internal Administrative services (clerical staff).

Specific work areas include:

- Manage budget, expenditures, and forecasting for four departments, approximately 3 million dollars.
- Manage, plan, and maintain of University's data network, network security, and infrastructure, ?? buildings, ?? data ports, 2,500 desktop computers, ~2,500 administrative and ~10,000 student users.
- Develop and execute agreements with technology vendors (Dell, Apple, etc.) on behalf of the University to be sold through the Campus Computer Store including repair processes through the Technical Services department.
- Design, develop, deploy, and maintain (often as project lead or architect) projects.

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Including the Universities web site, “pay for print” system, on-line course search, and others. Including desktop, distributed, client-server, multi-tier, and Internet (web-based) applications.

- Manage the offering of high-speed Internet access (through TimeWarner cable) discount program.
- Participate on several Technology related University committees and groups (Web, IT Management, Facilities, etc.)
- Investigate and communicate relevant advances and practices to technology staff and University community alike. Technical consultant to higher levels of management.
- Many responsibilities of previous position.

July 2001 – June 2006, University of Southern Maine,
Director of Database, Application, and Software Development.

A “working manager” position that includes management of 5-10 staff and development work on several projects.

- Responsible for department of software developers, system administrators, database administrators, and web developers.
- Investigate and communicate relevant advances and practices to developers and University community alike. Technical consultant to higher levels of management.
- Participate on several key Technology related University committees and groups. Including but not limited to; Standing Web [deployment] Group, Information Technology Reorganization committee, University Business Process Review and Improvement Committee.
- Chief architect on development projects for department, University, and University system-wide offices. Including desktop, distributed, client-server, multi-tier, and Internet (web-based) applications.
- Design, develop, deploy, and maintain (often project lead) several high-profile projects. Including the Universities web site, “pay for print” system, on-line course search, and others. Again including desktop, distributed, client-server, multi-tier, and Internet (web-based) applications.
- Direct (and act as backup for) database administrators on production and development database servers. Microsoft SQL Server, Oracle 8/8i/9i, Postgresql, and others.
- Direct (and act as backup for) system administrators on production and development systems. WindowsNT/2000, Linux, UNIX, MacOS, and others.
- Many responsibilities of previous position(s)

July 1998 – July 2001, University of Southern Maine,
Senior Software Engineer

The senior (or lead) developer on most locally developed applications. The lead on most locally deployed 3rd party applications not handled through system-wide offices.

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- Responsible for teams of software developers, system administrators.
- Administer several UNIX, Linux, and WindowsNT/2000 Servers and associated services (web, email, etc.) provided.
- Administer production Oracle8i database server (on WindowsNT and Linux).
- Design, develop, deploy, and maintain (often project lead) numerous projects.
- Chief architect on development projects for department and University.
- Many responsibilities of previous position(s)

January 1996 – July 1998, University of Southern Maine,
Computer Programmer/UNIX System Administrator

- Responsibilities of previous Computer Programmer position.
- Work with client-server based protocols to create distributed solutions for campus computing needs. Specifically SQL and TCP/IP.
- Extensive work with TCP/IP, IPX/SPX protocol suites, specifically POP3, BOOTP, DHCP, SMTP, FTP, TFTP, HTTP, and Gopher clients and servers.
- Manage and trouble-shoot UNIX computing facilities throughout campus.
- Develop, design, and instruct seminars and workshops for University community. Including HTML, TCP/IP, SQL, and others.

June 1994 – January 1996, University of Southern Maine,
Computer Programmer/Software Support Specialist

- Responsibilities of previous Computer Programmer position.
- Develop and maintain UNIX (TCP/IP) servers to support campus use of the Internet and intranet, specifically Gopher, HTTP, BOOTP, and DNS servers.
- Advise and recommend client-server solutions for computing needs.
- Advise in management of UNIX computer network across campus.

August 1991 – June 1994, University of Southern Maine,
Computer Programmer

- Develop and maintain software tools for use in campus computing facilities.
- Extensive work with intel x86 (MS-DOS, Windows), IBM
- Communicate relevant advances and practices to developers and University community alike. Technical consultant to higher levels of management. RS/6000 (AIX), and Macintosh (680x0, PowerPC) using C, C++, and Assembler.
- Develop and evaluate tools to measure, track, and improve performance of Novell NetWare and UNIX computing facilities.
- Develop and maintain network tools for collection of application and user data for statistical reports.
- Assist faculty and staff in developing course specific applications including multi-media presentations and custom routines for integration with their projects.

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- Teach workshops on varied computing topics and computer applications.

May 1991 – August 1991, Schroff Development,
Manager of Research and Development/Software Engineer

- Responsible for organizing programming tasks for a team of 5 Software Engineers.
- Develop and test new versions of 3D solid modeling CAD product.
- Previous responsibilities of Software Engineer position.

May 1989 – May 1991, Schroff Development,
Software Engineer

- Develop and test device drivers (video, plotter, digitizer tablet, mice, and printer) for 3D CAD product.
- Optimization in Assembly language of C routines for increased speed.
- Development work on intel x86, Sun, and Silicon Graphics (MIPS) processors.

May 1988 – May 1980, University of Southern Maine,
Student Programmer

- Develop and test small utility programs to support computing on campus.
- Develop initial networking tools for mass-management of users.
- Tutor students, staff, and faculty on network and general computer use.

July 1988 – June 1989, Fairchild Semiconductor,
Temporary Technician

- Responsible for daily, weekly, and monthly backups of DEC VAXCluster on site.
- Handle on-site service calls from end users.
- Utility programming in DEC's job control language (JCL).

September 1986 – May 1988, University of Southern Maine,
Computer Lab Supervisor/Coordinator

- Manage student access computer labs
- Identify and diagnose failed equipment for off-site repair.
- Programming projects to help maintain computing facilities and to generate statistics on computer use.

Teaching Experience:

May 1994 – Present, University of Southern Maine,
Adjunct Faculty, Department of Computer Science

- Operating Systems and Computer Networking – senior and graduate level

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courses.

- Mobile Application Development – junior/senior students in independent study developing mobile applications.
- Java, C/C++, and autonomous robot programming at the undergraduate level.
- The UNIX operating system – sophomore level practical how-to course.
- Programming Autonomous Robots – sophomore level practical how-to course to introduce AI concepts and encourage degree continuation.
- Programming mobile and handheld devices; iOS and Android.
- Have consistently received high evaluations from staff, peers, and students alike.

January 1995 – May 1997, Southern Maine Technical College,

- Introductory courses in C++ programming.

January 1993 – December 2001, Self Employed Independent Contractor,

- Workshops on UNIX operating system and C/C++ programming.

Publications:

- *Network File Server Performance in a University Environment: A Case Study*, Masters Thesis, Department of Computer Science, University of Southern Maine, May 1996.
- *Analysis of Disk Workloads in Network File Server Environments*, with John Heath, Proceedings of Computer Measurement Group 1995 (CMG'95). Awarded *Best Paper in Storage and I/O Division*, December 1995.
- *Disk Access Patterns in Network Filer Server Environments*, with John Heath, Technical Report TR 95-5, Department of Computer Science, University of Southern Maine, May 1995.
- *On the Relationship of Server Disk Workloads and Client File Requests*, with John Heath, Proceedings of Computer Measurement Group 1996 (CMG'96), December 1996.

Professional Activities and Awards:

- 2010 Recipient of University of Southern Maine's Distinguished Professional Staff Award, in recognition and appreciation of professional excellence, educational commitment, leadership and creativity.
- 2004 Faculty Technology Grant recipient for \$2,500.00. The grant was for environmental sensing equipment that is the basis for developing operating system drivers and a distributed network system used in teaching.
- 2004 Outstanding Alumnus in Computer Science, School of Applied Science, Engineering, and Technology, University of Southern Maine.
- 2003 Professional Staff Divisional Excellence Award for the Division of Academic Affairs.
- 2002 Faculty Technology Grant recipient for \$2,400.00 in funds to support teaching Operating Systems and Networks courses. The grant paid for virtual

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machine software and associated disk space that allows students better access to operating system and network development tools.

- 1995 Recipient of University of Southern Maine's Emerging Professional Staff Award.
- CMG'95 Best Paper in Storage and IO Area, with John Heath.

Education:

January 2003 – Present, University of Southern Maine/University of Maine

Accepted as a candidate for the Doctor of Philosophy degree in Computer Science.

August 2003, Sun Certified Programmer for the Java2 Platform 1.4

Industry certification for the Java programming language.

May 1996 – December 2003, University of Southern Maine

Various courses in visual design, electronic communication and art.

May 1996, University of Southern Maine, Master of Science in Computer Science.

Concentration in Operating Systems, Networks, and System Architecture. Thesis:

Network File Server Performance in a University Environment: A Case Study.

Analyzes and compares disk and network traffic of two Novell NetWare file servers.

May 1993, University of Southern Maine, Bachelor of Science in Computer Science.

Concentration in Operating Systems, Networks, and System Architecture.

Other Memberships and Items of Interest:

- 2013 EDUCAUSE Participating Representative (Primary for USM).
- 2012 EDUCAUSE Participating Representative.
- 2009 EDUCAUSE Participating Representative.
- 2009 USM NEASC Accreditation; Standard 8 Facilities and Technology.
- 2009 USM Director of Institutional Reporting Selection Committee.
- 2009 USM Budgetary Advisory Committee Member
- 2008 EDUCAUSE Participating Representative.
- 2008-2009 USM Professional Staff Senate Chairperson and ex-officio member USM Board of Visitors.
- 2008 USM Strategic Planning.
- 2008 USM Energy Ad-Hoc Committee.
- 2007 USM President Selection Committee.
- 2007-2008 USM Professional Staff Senate Chairperson and ex-officio member USM Board of Visitors.
- 2005-2010 Cubmaster, Cub Scout Pack 349 Buxton, Maine.
- Member of American Radio Relay League (ARRL), devoted to amateur radio in the United States, I hold and extra class license, N1SH.
- University of Southern Maine Blade Society (Olympic and period style fencing)

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Advisor

- University of Southern Maine Computer Users Group, Technical Advisor.
- University of Southern Maine Information Technology Review Committee.
- University of Southern Maine Web Team and Web Advisory Board to implement and direct (respectively) the course of the Universities web presence.
- University of Southern Maine, University Business Process Review and Improvement Committee (2007-2008).
- Maine Software Developers Association (MESDA).
- Association for Computing Machinery (ACM).
- Member of Computer Measurement Group, devoted to computer measurement and performance analysis (former).
- Member of Phi Kappa Phi National Honor Society for academic excellence (1996).
- Have reviewed several textbooks for publishers relating to topics taught.
- Actively involved in leadership training for young men through outdoor activities and Scouting;
 - 2006-2009 Cubmaster for Buxton Pack 349.
 - 2009-Present Scoutmaster for Buxton Troop 349
- Other hobbies include; scouting, electronics, robotics, woodworking, metalworking, biking, skiing, camping, golf, drawing, and more.

References:

Work and/or personal available on request.