

# Josh Wardell

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## Objective

To obtain an IT or engineering position designing and implementing new technologies with embedded software and digital hardware.

## Education

Aug 1996 - **Syracuse University** : Syracuse, New York  
May 2000 L.C. Smith College of Engineering and Computer Science  
BS: Computer Engineering Minor: Electrical Engineering

## Technical Skills

Platforms: MacOS : MacOS X : Windows 9x/NT/2k/XP : SunOS : Solaris : HP/UX : Linux : PalmOS : MS-DOS  
Languages: Embedded C : C++ : Assembly : Microcode : VHDL : HTML : JavaScript : Pascal : Scheme  
Software: Microcontroller and Operating System C and Assembly : Object-Oriented High-Level Software Design  
ClearCase : MetroWorks Codewarrior : Microsoft Developer Suite : AshWare TPU Simulator : Adobe  
Photoshop : Final Cut Pro : Microsoft Office  
Hardware: Board-level component implementation and design : Analog and Digital Circuits : VLSI design Digital TTL  
Logic Design and Simulation : Computer Architecture : Semiconductors : RF Circuits : Xilinx Field  
Programmable Gate Arrays : MATLAB : Pspice : RS-232 Serial : Microchip MPLab with PIC Microprocessors  
Zilog Developer Studio with z80 Microprocessor : Apple Certified Technician

## Experience

Apr 2004 - **MIT Lincoln Laboratory** Lexington, MA : *Senior Repair Technician*  
present Diagnosed and repaired computer hardware issues on all Macintosh systems in the company as well as a portion of Dell computers. Provided in-person and over-the-phone troubleshooting and support of related issues. Retained Apple Certified Desktop Technician status through annual testing and utilized Apple's GSX online repair system. Additional roles included setup and imaging of new Apple and Dell systems as well as active participation in Macintosh advisory committee.

Dec 2002 - **MIT Lincoln Laboratory** Lexington, MA : *IT Desktop Support Analyst*  
Apr 2004 Provided on-site IT support both hands-on and over the phone. Supported over five thousand machines of various operating systems with a team of four. Performed all Macintosh support as well as a quarter of Windows support in addition to other UNIX operating systems. Achieved a high degree of user satisfaction by solving the problem no matter how big or how small. Assisted with any and all issues that arose including hardware, operating system, office, scientific applications, networking, and third party software.

Jun 2000 - **Motorola AIEG** Northbrook, IL : *Embedded Software Engineer*  
Dec 2001 C, Assembly, and Microcode design and implementation for automotive engine controllers. Worked in the Automotive and Industrial Electronics Group Powertrain Software Division programming various functions for future engine controller modules. Designed and developed embedded software for microprocessors including the Motorola PowerPC 550/Time Processing Unit, Hitachi SuperH 7055, and Microchip PIC 12C671. Debugging, simulation, and bench testing performed with tools including HP logic analyzers, AshWare TPU simulator, Lauterbach debugger and various custom-programmed tools. Produced design documentation and participated in inspections for all code and documents as per the Software Engineering Institute Capability

Maturity Model. Utilized ClearCase extensively on both Unix and Windows for version control of all related files. Participated in many technical and managerial training courses.

- May 1999 - Aug 1999 **Texas Instruments** Dallas, TX : *Embedded Software Engineer*  
Graphing calculator program design and implementation. Worked in Educational and Productivity Solutions department on several projects relating to TI graphing calculators. Worked with large team on classroom-to-Internet calculator network. Programmed several applications for calculators in z80 assembly. Evaluated C and assembly development software packages. Researched hardware level of PC parallel port architectures with WinNT connectivity for use with hardware development systems. Vigorously tested several calculator applications as well as MacOS calculator link software.
- May 1997 - May 2000 **Residential Computing Services** Syracuse University : *Consultant*  
On-site technical support. Provided support for student computing technical problems both over the phone and on-site. Maintained campus network infrastructure for several thousand subscribers. Marketed networking services to students and parents. Attended several customer understanding workshops.
- May 1997 - Aug 1997 **Heliotrope Studios** Guilford, CT : *Intern Programmer*  
Commercial PC programming. Worked with small development company on the commercial PC space strategy game *Pax Imperia II*. Programmed various portions in C++ on large code base using Microsoft Developer Studio. Gave suggestions and input into game design. Worked with other companies to integrate their media into code.
- Jul 1994 - Aug 1998 **The Place Restaurant** Guilford, CT : *Cook*  
Cooking and serving food. Cooked various foods for a local outdoor restaurant. Occasionally waited as well. Worked with other employees to tend to customer needs. Developed full web site with graphics.
- Jan 1998 - May 1998 **The Soling Program** Syracuse University : *Team Member*  
Team-based problem solving. Worked on a small team to design a web site for the Syracuse University Undergraduate Research Program web site. Took and gave constructive input with other teams. Gave several professional presentations on the progress of the project.
- Feb 1995 - Dec 1997 **America Online, Inc.** Dulles, VA : *Remote Assistant*  
Remote forum maintenance and administration. Remotely assisted in AOL's Computing Web channel. Help design, develop, maintain, and support one of the first areas on AOL focused on the Web. Gave customers technical support. Authored several web pages for the channel.

## Training

- Industry Software Engineering Institute Capability Maturity Model, ClearCase, Software System Testing, Software Inspection, C Programming, Perl, MathWorks Simulink, Spark-Ignition Engines, Equal Opportunity Employment, Workplace Ethics, Recruiting Methods.
- College Digital Machine Design, VLSI Design, Switching Theory and Sequential Machine Design, Communication Systems, Probability and Statistics, Computer Architecture, Ethical Aspects of Engineering, Differential Equations and Matrix Algebra, Design of Internet Services, Digital Circuits and Systems, Technical Writing, Algorithms and Data Structures, Assembly Languages, Abstract Math, Digital Logic Design, Circuit Analysis, Physics I & II, Calculus I - III, Chemistry.

References available upon request.