

EMPLOYMENT

- Engineering Science Advisor: Alion Science & Technology** Mystic, Connecticut Jan 2000 – Present
- Technical lead on phase I of a multidisciplinary unambiguous warning system (Smoke & Mirrors) for aerial, surface, and submerged threats sponsored by USCG and ONR.
 - Technical lead of a series of multi-platform/processor software libraries. This includes the video compression, audio compression, and color space conversion libraries. These are built from a large set of common source code and compile under multiple operating systems (WinXP, WinCE, Linux, etc) and contain additional run-time selectable optimizations for specific processors (P4-SSE2, TriMedia, StrongARM, etc). Verification and performance analysis programs support each library and follow the same platform independence as the libraries (using a console or GUI as detected).
 - Technical lead of a rapid prototyping RACON team. Tasks included defining requirements, system design, digital subsystem circuit/software design and implementation; requirements to first successful in-house test in less than 5 months.
 - Team member of a program to retro-fit periscopes with a remote control system. Tasks included analysis of existing system design, retro-fit hardware/software design and implementation.
 - Member of team developing numerous demonstration systems from quick software demonstrations through large system implementations.
 - Member of team developing a “skin” based application to allow rapid customization of demonstration software for potential customers across available PDA devices.
- Adjunct Professor: University of Connecticut** Storrs, Connecticut Jan 2003 – Aug 2004
- Multimedia System Design (Fall 2005) for junior and senior level undergraduates
 - Fundamentals of Reverse Engineering (Summer 2004) for junior and senior level undergraduates.
 - Digital Circuit Design Theory (Spring 2003) for sophomore through senior level undergraduates.
 - Digital Circuit Design Lab (Fall 2003) for sophomore through senior level undergraduates.
- EDI Consultant: Mapen Services** Newtown, Connecticut Jan 1997 – Dec 2002
- Application record development, setting up trading partners, and map translations in Gentran Mentor and Gentran Server on RS6000 and Windows based PC systems.
- Engineering Internship: United Technologies Research Center** East Hartford, Connecticut May 1998 – Aug 1998
- Designed circuitry to interface between the vehicle and computer, creation of part of the user interface in Windows CE using C++ and COM, VHDL coding for next revision of ASICs, and various computer based engineering challenges as a member of the advanced digital systems division.

EDUCATION

- University of Connecticut** Storrs, Connecticut 1995-2002
- M.S. in Computer Science and Engineering, 2002
Thesis: Efficient Hardware Context Switches in Field Programmable Gate Arrays
- B.S.E. in Computer Science and Engineering, 1998
Summa Cum Laude, Honors Scholar, Minor in Mathematics
Thesis: Short Range Robot Communication

AWARDS & HONORS

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| Invited Speaker | UPE Honor Society – Anti-Reverse Engineering | 2004 |
| Distinguished Performance Award | Development efforts of WiFi Video at Anteon | 2004 |
| Best Presentation | Anteon 2002 Technology Symposium | 2002 |
| Excellence in Leadership | Engineering Student Leadership Counsel & UConn Co-op BoD | 1999 |
| Outstanding Achievement Award | United Technology Research Center | 1998 |
| Guest Speaker | University of Connecticut Convocation | 1998 |
| Babbidge Scholar | 4.0 GPA for calendar year | 1997 |
| New England Scholar | 3.5+ GPA for calendar year | 1995, 1996 |

LANGUAGES AND PLATFORMS

Languages: VHDL, C/C++, various assembly (80x86, PIC, ARM/XScale, TriMedia/Nexperia, etc), HTML; limited experience with Java, LISP, Pascal, Visual Basic, Ada 9x, ML, lex/yacc.
Platforms: Win9x/NT/XP, WinCE(.NET); limited experience with linux, pSOS, VxWorks, and other embedded platforms.

PUBLICATIONS

Mapen, Barry E. "Wavelet Integrated Image Enhancements" In *Anteon 2004 Technology Symposium*, Fairfax, VA, 2004.
Mapen, Barry E, et al. "Opto-Electronic Video Compression System" USPTO Patent Application, January 2002.
Mapen, Barry E. "Efficient Hardware Context Switches in Field Programmable Gate Arrays" Master's thesis, Department of Computer Science and Engineering, University of Connecticut, 2002.
Mapen B.E., Perkins J. B., Lerman A. B. "Video Compression for Low Power Devices" In *Anteon 2002 Technology Symposium*, Fairfax, VA, 2002.
Mapen, B.E. and J. Rosiene. "Integrating Adaptive Computing with Distributed Services Medicine" In *12'th Annual IEEE Symposium on Computer-Based Medical Systems*, Stamford, CT, June 1999.

UNIVERSITY / COMMUNITY SERVICE

EMS Volunteer / Rescue Diver	Westerly Ambulance Corps.	2002-Present
Director	Engineering Alumni Society Board of Directors, UConn	1998, 1999
Student Member	Open House Planning Committee	1998, 1999
Organizational Member	National Engineers Week	1998, 1999
Student Member	Dean of Engineering Search Committee, UConn	1997

LICENSES & CERTIFICATIONS

PADI: Dive Master; HeartSaver: CPR, First Aid, and AED for Healthcare Providers Instructor; NFA: Rope Rescue 2; DoT: Haz-Mat Awareness; Dive Rescue International: Ice Rescue Specialist.