

RAYMOND T. ALBERT

Curriculum Vitae

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Summary:

- Knowledgeable of special responsibilities and challenges facing higher education faculty and administration especially with respect to information assurance (cybersecurity) programs and initiatives
 - Practiced and effective professor and administrator in a university setting
 - Able to design and effectively implement instruction to maximize education in traditional, distance, and online delivery modalities
 - Able to work well with diverse groups to achieve consensus and bring projects to fruition
 - Creative self-starter with academic and professional experience with various academic constituencies to achieve group/organization objectives
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Education: **Online Teaching Certificate (SLOAN-C Institute)**, Newburyport, Massachusetts, August 2012;

Post-Graduate Certificate (CS), Purdue University, West Lafayette, Indiana. August, 2003;
Program: **Information Assurance/Security** (Computer Science)

Doctor of Philosophy, University of Florida, Gainesville, Florida. December, 1996;
Concentrations: Instructional Technology
Grade point average: 4.0/4.0

Master of Science, University of Vermont, Burlington, Vermont. 1986;
Major: Computer Science
Grade point average: 3.5/4.0
Comprehensive/Theses: Concurrency Construct Analysis of the Synchronizing Resources (SR) Programming Language.

Analysis of Error Propagation and Recovery in Concurrent Environments.

Bachelor of Arts, University of Maine, Fort Kent, Maine. 1983;
Field: Mathematics/Science
Grade point average: 3.1/4.0

Relevant Graduate Study:

Intro. & Advanced Information Assurance	Computer Security	Cryptography
Intro. & Advanced Operating Systems	Digital Computer Design	Theory of Comp.
Intro. & Advanced Computer Architectures	Algorithm Analysis	DBMS's
Intro. & Advanced Programming Languages	Real Time Systems	Data Structures
Design & Development of Educ. Media	Instr. Message Design	Instr. Development
Production and Utilization of Educ. Media	Interactive Video	Animation/Graphics
Educ. Television Design and Production	Ed. Psych. Learning Theory	

Working Knowledge of Programming Languages:

C (50,000+ lines of code), Java, Python, Visual Basic. *Also experience with:* Actor, Ada, Alice, Algol68, ASP, C++, C#, COBOL, Delphi 2, FORTRAN, HyperCard, JavaScript, Lisp, MASM, Pascal, Perl, and SNOBOL.

**Teaching
Experience:**

- Sept. 2018 – Present* **Director of Cybersecurity Program and Professor of Practice, Assumption College, Worcester, Massachusetts.**
Responsibilities included oversight and administration of Assumption College Cybersecurity Program in addition to serving as primary instructor responsible teaching of 6 credit hour Cybersecurity course load per semester (two semester year). Also involved in student academic advising, program curriculum oversight.
- Sept. 2016 – Aug. 2017* **Director of Maine Cyber Security Cluster, University of Southern Maine, Portland, Maine.**
Responsibilities included oversight and administration of Maine Cyber Security Cluster in pursuit and fulfillment of its tri-partite mission of cybersecurity Education, Research, and Public Service.
- June 2015 – Sept. 2016* **Arts/Sciences Division Chair, University of Maine, Fort Kent, Maine.**
Responsibilities included oversight and administration of division budgets; approval of course schedules and faculty assignments, coordination of the effective assessment of all programs and of student learning outcomes; providing support, guidance and objective feedback to all division personnel. The division consists of 19 full-time and 15 part-time faculty, and 3 staff members in more than 8 different discipline areas with a combined \$2.3M operating budget.
- Sept. 2004 - Present* **Program Coordinator for Computer Applications and Information Security, University of Maine, Fort Kent, Maine.**
Responsibilities include oversight and management of Computer Applications and Information Security degree programs. This program has two full-time faculty and six adjunct faculty.
- Sept. 2004 - Present* **Professor of Computer Science, University of Maine, Fort Kent, Maine.**
Responsibilities as cited under Associate Professor of Computer Science (see below).
- June 2005 – Sept. 2009* **Natural/Behavioral Sciences Division Chair, University of Maine, Fort Kent, Maine.**
Responsibilities included oversight and administration of division budgets; approval of course schedules and faculty assignments, coordination of the effective assessment of all programs and of student outcomes; providing support, guidance and objective feedback to all division personnel. The division consisted of 19 full-time and 15 part-time faculty, and 3 staff members in more than 8 different discipline areas with a combined \$1.9M operating budget.
- Sept. 2001 – Sept. 2010* **Adjunct Professor, Nova Southeastern University, Graduate School of Computer and Information Sciences, Fort Lauderdale, Florida.** Responsibilities included teaching of graduate level Information Security and Database Systems courses among others.
- Jan. 1997 – Sept. 2004* **Associate Professor of Computer Science, University of Maine, Fort Kent, Maine.**
Responsibilities as cited under Assistant Professor of Computer Science (see below). Awarded tenure September 1, 1996. Contributing member of Chancellor's Information Technology Task Force. Delivered full course load from a distance (Ohio) to locally situated (Maine) students during 1998-1999 academic year using mixed media (Internet, VHS, telephony). Have offered following courses:

Introduction to Computers	Programming Languages
Intro. to Information Technology	Data Structures
Introduction to Programming	Intro. to Information Security
Computer Organ./Assembly Lang.	Database Management Systems
Operating Systems	Local Area Networks
Systems Analysis and Design	Networking
Information Assurance & Security	Cryptography
Network Security	Computer Prog. I & II – COBOL
Computer Prog. I & II - C	Computer Prog. I & II – FORTRAN
Computer Prog. I & II - C++	Computer Prog. I & II – VB

Committees served:

Chancellor Search Committee	UMS Finance & Tech Comm.
UMS Technology Assessment Comm.	President's Cabinet
Presidential Search Committee	Fac. Rep. to UMS Board of Trustees
Faculty Chair	Peer Review Committee
Strategic Planning Steering Comm.	Academic Council
Chancellor's Telecomm. Working Group	Faculty Secretary
Academic Computing Committee	Innovative Teaching Fund Comm.
Faculty Development Committee	Software Eval./Selection Comm.
Desktop Publishing Comm.	Computer Center Advisory Comm.
Quad-campus Unix System Users Group	AFUM Union Representative
Chancellors Task Force on Telecommunication and Information Technology	

Sept. 1989 - Dec. 1996

Assistant Professor of Computer Science, University of Maine, Fort Kent, Maine. Responsibilities included teaching of 12 credit hour Computer Science course load per semester (two semester year). Also involved in student academic advising, faculty committee work, and degree program reviews. Have regularly managed direct studies, internships and have carried a credit-hour overload to accommodate student and campus needs. Offered COSK 100 Introduction to Computers course statewide via the University of Maine Interactive Television System during both fall and spring semesters beginning with fall semester 1991. Educational leave of absence granted from 09/01/89 through 08/31/90. Sabbatical granted from 9/1/93 through 9/1/94 followed by a second educational leave from 9/1/94 through 9/1/95.

Jan. 1994 - Aug. 1994

Adjunct Professor of Computer Information Systems, Santa Fe Community College, Gainesville, Florida. Responsibilities included teaching of two sections of introductory computer programming courses (COP 1000).

Sept. 1993 - May 1995

Graduate Teaching Assistant, University of Florida, Gainesville, Florida. Responsibilities included provision of instructional design and development assistance to liberal arts faculty implementing large-scale multimedia presentations. Efforts conducted through the University of Florida, Office of Instructional Resources (OIR).

Sept. 1991 - Dec. 1992

Assistant Professor of Computer Science, University of Maine at Fort Kent, Maine. Upon request, offered COSK 100 Introduction to Computers course over the Education Network of Maine (formerly Instructional Television system of Maine). Course offered statewide over distance education system consisting of over 75 receive sites. Developed several innovative instructional/assessment tools designed to support and enhance remote communication between students and faculty.

Jan. 1987 - July 1989

Instructor of Computer Applications, University of Maine, Fort Kent, Maine. Responsibilities included teaching of four Computer Science courses per semester (two semester year). Also student academic advising and faculty committee involvement. One half-release time granted during first academic year for implementation of campus computer ISN network and 3B2/400 minicomputer system. Joint fiscal academic computing responsibility during academic years 1987 - 1988. Joint participation in design and implementation of Computer Applications Baccalaureate degree program. Joint participation in design and implementation of inter-campus Computer Applications outreach program developed for Loring Strategic Air Command Base. Co-developed the

Academic Computing Environment (ACE) technology infrastructure specification for UMFK campus.

Sep.1984 - Dec.1986

Teaching Fellow, University of Vermont, Burlington, Vermont. Duties included teaching of two lab sections of CS-11 (Computer Programming) course. General responsibilities included administration of lectures, programming assignments, and quizzes as well as student counseling support provided through several office hours planned during each week.

Professional Experience:

Jan. 1998 – June 2007

Managing Partner and CEO, QualityQuest, L.L.C., Eagle Lake, Maine. QualityQuest, L.L.C., a New England based company, is a pioneer in the field of electronic surveying and evaluation. The services it offers utilize the latest server-side software technology available, while taking advantage of the existing network infrastructure already in place in most college campuses and companies nation-wide. Through its innovative approach to information collection, analysis and reporting, its premier service, Excel-A-Ratesm provides clients a cost-effective turn-key solution to Internet-based online data collection and reporting.

June 1989 - Aug. 1990

Software Quality Engineer, NASA Johnson Space Center, Houston, Texas. Responsibilities included analysis of contractor software development methodologies including recommendations for process improvement, problem trending, discrepancy report/waiver/deviation/change request review and disposition, general configuration management involvement, formal test procedure review and test witnessing, major scheduled milestone review participation, software product assurance standard development participation. Specific program of emphasis was the SSE (Software Support Environment) for SSFP (Space Station Freedom Program).

Dec.1987 – Dec.1997

Sole Proprietor of COMPUSOLVE, a computer consulting business focused on computer information system enhancement for the purpose of improved quality and productivity.

Jun.1986 - Dec.1986

Software Engineer/Programmer, Macro Systems Inc., Burlington, Vermont. Responsibilities included design and development of an educational software system for the express use of students enrolled in a transitional program from an institution for the mentally handicapped to *real world* employment.

Jun.1983 - Aug.1984

Community Development Director, Town of Eagle Lake, Eagle Lake, Maine. Responsibilities included both fiscal and administrative control over 1983-1984 federal Community Development Block Grant (C.D.B.G.) awarded to town. Grant funds in excess of \$360,000 were primarily targeted for use in low/moderate income house rehabilitation projects throughout the entire community.

Recent Selected Presentations:

Presenter. Enhancing Cybersecurity Through Collaboration?, 2017 Partnership in Cybersecurity Summit.

Co-Presenter. Best Practices in Answering “Are We Secure Yet?”, 2017 Maine Digital Government Summit.

Presenter. The Collaboratory Experience: The Human Factor in Cybersecurity, 2016 Colloquium of Information System Security Education (CISSE).

Presenter. Experiences with Establishment of a Multi-University Center of Academic Excellence in Information Assurance-Cyber Defense, 2015 Annual World Congress in Computer Science, Computer Engineering & Applied Computing Conference (WORLDCOMP).

Presenter. SCADA and Cybersecurity from a Curriculum and Instruction Perspective, 2014 Annual World Congress in Computer Science, Computer Engineering & Applied Computing Conference (WORLDCOMP).

Presenter. Experiences with the Promise and Potential of Service Learning in an Online Information Security Curriculum, 2013 Annual World Congress in Computer Science, Computer Engineering & Applied Computing Conference (WORLDCOMP).

Presenter. Implementation Progress, Student Perceptions, and Refinement of a Virtual Information Security Laboratory Maine. 2012 Annual World Congress in Computer Science, Computer Engineering & Applied Computing Conference (WORLDCOMP).

Presenter. Goals Models and Progress Towards Establishing an Information Security Laboratory in Maine. 2011 Annual World Congress in Computer Science, Computer Engineering & Applied Computing Conference (WORLDCOMP).

Co-presenter. High School Cyber Defense Competitions – Lessons from the Trenches. 2010 Annual World Congress in Computer Science, Computer Engineering & Applied Computing Conference (WORLDCOMP).

Co-presenter. Cyber Defense Competitions - Educating for Prevention, 2010 Annual Association of Small Computer Users in Education (ASCUE) Conference.

Presenter. Approaches to Blended ('Hybrid') Learning within the University of Maine System. First New England Regional SLOAN-C Conference on collaboration, collegiality, and community among online educators, October 2009.

Presenter. The 'U' in Information Security. Association of Small Computer Users in Education (ASCUE) 2009 conference on academic and administrative technology issues and innovation in higher education.

Presenter. The Scholarship of Teaching and Learning Online: Maintaining Balance. Association for the Advancement of Computing in Education (AACE) E-Learn 2003 World Conference on E-Learning in Corporate Government, Healthcare, and Higher Education, November 2003.

Poster Presenter. Relationships among Bilingualism, Critical Thinking Ability, and Critical Thinking Disposition. American Association of the Colleges of Nursing (AACN) - Baccalaureate Education Conference, November 2002.

Presenter. "New and Improved" Accountability. Eighth SLOAN-C International Conference on Asynchronous Learning (ALN), October 2002.

Co-presenter. Toward a Statewide Distributed Virtual Campus: The Education Network of Maine. EDUCOM conference, October 1992.

Presenter. UMS/ITV System Integration Prototype. Computers on Campus national conference, University of South Carolina, 1992.

Accepted to present but unable to attend. Computer-based Course Tools for Distributed Education. Information Technology Issues in Community Health (ITCH) international conference, University of Victoria, December 1992.

Recent Selected Publications:

Handman, D. & Albert, R. T. (2017), "**The Collaboratory Experience: The Human Factor in Cybersecurity**", Journal for the Colloquium of Information System Security Education (CISSE), 4th Edition, Issue 2, February 2017.

<https://cisse.info/archives/file/383-p09?tmpl=component>

Albert, R. T., Bennett, C., Briggs, D., Ebben, M., Felch, H., Kokoska, D., Lovewell, L., MacDonald, C., Markowsky, G., Markowsky, L., Murphy, J., Sihler, E., Wilson, G. (2015), "**Experiences with Establishment of a Multi-University Center of Academic Excellence in Information Assurance-Cyber Defense**", peer reviewed article published in the proceedings of the international 2015 World Congress in Computer Science, Computer Engineering & Applied Computing Conference (WORLDCOMP) <http://worldcomp-proceedings.com/proc/proc2015/sam.html>

Albert, R. T. (2014), "**SCADA and Cybersecurity from a Curriculum and Instruction Perspective**", peer reviewed article published in the proceedings of the international 2014 World Congress in Computer Science, Computer Engineering & Applied Computing Conference (WORLDCOMP) <http://world-comp.org/proc2014/sam.html>

Albert, R. T. & Albert, R.E. (2013), "**Experiences with the Promise and Potential of Service Learning in an Online Information Security Curriculum**", peer reviewed article published in the proceedings of the international 2013 World Congress in Computer Science, Computer Engineering & Applied Computing Conference (WORLDCOMP) <http://world-comp.org/proc2013/sam.html>

Cavanagh, C. & Albert, R. T. (2012), "**Implementation Progress, Student Perceptions, and Refinement of a Virtual Information Security Laboratory Maine**", Proceedings of the 2012 Annual World Congress in Computer Science, Computer Engineering & Applied Computing Conference (WORLDCOMP) <http://world-comp.org/proc2012/sam.html>

Cavanagh, C. & Albert, R. T. (2011), "**Goals Models and Progress Towards Establishing an Information Security Laboratory in Maine**", Proceedings of the 2011 Annual World Congress in Computer Science, Computer Engineering & Applied Computing Conference (WORLDCOMP) <http://world-comp.org/proc2011/sam.html>

Albert, R. T., Markowsky, G. & Wallingford, J. (2010), "**High School Cyber Defense Competitions – Lessons from the Trenches**", Proceedings of the 2010 Annual World Congress in Computer Science, Computer Engineering & Applied Computing Conference (WORLDCOMP) <http://world-comp.org/proc2010/sam.html>

Albert, R. T., & Wallingford, J. (2010), "**Cyber Defense Competitions - Educating for Prevention**", Proceedings of the 2010 Association of Small Computer Users in Education (ASCUE) Conference <https://www.ascue.org/files/proceedings/2010-final.pdf>

Albert, R. T. (2009). "**The 'U' in Information Security**", Proceedings of the Association of Small Computer Users in Education (ASCUE) Annual Conference on Academic and Administrative Technology Issues & Innovation in Higher Education <https://www.ascue.org/files/proceedings/2009-final.pdf>

Albert, R., Broida, J., Page, S. & Sanford, R. (2009). A panel presentation entitled "**Approaches to Blended ('Hybrid') Learning within the University of Maine System**", at the 1st New England Regional SLOAN-C Conference on collaboration, collegiality, and community among online educators.

Albert, R. T. (2003). “**The Scholarship of Teaching and Learning Online: Maintaining Balance**”, Proceedings of the Association for the Advancement of Computing in Education (AACE) E-Learn 2003 World Conference on E-Learning in Corporate Government, Healthcare, and Higher Education.

Albert, R. T. (2003). “**New and Improved’ Accountability**”, Invited post to the SLOAN-C Effective Practices web site. <http://sloan-c.org/effective/browse.asp>

Albert, R. T. & Albert, R. E. (2002). “**Relationships among Bilingualism, Critical Thinking Ability, and Critical Thinking Disposition**”, Proceedings of the AACN - Baccalaureate Education Conference.

Albert, R. T. (2002). “**New and Improved’ Accountability**”, Proceedings of the Eighth SLOAN-C International Conference on Online Learning. <http://www.sloan-c.org/conference/proceedings/2002/track7.asp>

Albert, R. T., Albert, R. E. & Radsma, J. (2002). “**Relationships among Bilingualism, Critical Thinking Ability, and Critical Thinking Disposition**”, Journal of Professional Nursing, 18(4), pp. 220-229.

Albert, R. T. & Nehrer, P. (1997). **Excel-A-Ratesm** [Online rating service]

Albert, R. T., Cluxton, J. C. & Miller, M. D. (1994). Co-authored **EDF 6403 Quantitative Foundations of Educational Research Course Notes and Supplements (Volumes I & II)**

Albert, R. T., Cluxton, J. C. & Miller, M. D. (1994). Co-authored **EDF 7405 Advanced Quantitative Foundations of Educational Research Course Notes, Supplements, and Annotated Computer Printouts (Volumes I, II, & III)**

Selected Reviews:

Invited review of “From Novice to Expert: Harnessing the Stages of Expertise Development in the Online World”, article submission to Association of Small Computer Users in Education (ASCUE) 2009 conference on academic and administrative technology issues and innovation in higher education.

Invited review of “The Effectiveness of Podcasting on Achievement in Principles of Accounting”, article submission to Association of Small Computer Users in Education (ASCUE) 2009 conference on academic and administrative technology issues and innovation in higher education.

Invited review of “Identification, Causes, and Prevention of Identity Theft”, article submission to Association of Small Computer Users in Education (ASCUE) 2009 conference on academic and administrative technology issues and innovation in higher education.

Invited review of “Capture Everything: Architecting a set of technologies and policies to support enterprise video capture” conference proposal submission to Future Trends and Technologies track of the EDUCAUSE 2009 Annual Conference on the best thinking in higher education IT.

Invited review of “It’s an enrollment world: How technology can help” conference proposal submission to Future Trends and Technologies track of the EDUCAUSE 2009 Annual Conference on the best thinking in higher education IT.

Invited review of “PHISHING the PHISHER using Web Bugs and HoneyTokens to Investigate the Source of PHISHING Attacks”, article submission to Hawaii International Conference on System Sciences (HICSS) 2008.

Invited review of “Quality Assurance in Educational Software Development”, article submission to Hawaii International Conference on System Sciences (HICSS) 2008.

Invited review of John Wiley & Sons, Inc. “Handbook of Information Security” contribution on database security.

Invited review of Whitten, J., Bentley, L. & Dittman, K. (2003). Systems Analysis & Design Methods. McGraw-Hill Publishing Company. ISBN: 0-07-293261-9. December, 2003.

Focus group participant. Opinions sought regarding major technology issues and how they affect self and institution, October, 2002.

SimNET XPert - Office XP Assessment Software. Published by McGraw Hill. April, 2002.

Research/Grant

Awards:

Co-PI on Defense Intelligence Agency (DIA) grant (\$20,000,000; HHM402-17-FOA-399, *pending decision*) titled “IC Center for Academic Excellence at Northeastern University”. A five-year project with Northeastern University and the University of Maine at Fort Kent, as well as our partners at the University of Texas El Paso (UTEP) who understand the critical need to identify and prepare the next generation of intelligence analysts charged with supporting U.S. national security. The consortium offers a solution that addresses this need in the short and long term through the Intelligence Community Center of Academic Excellence (IC CAE@NEU) program. By offering its intelligence analysis program and related certificates, our goal is to be the premier IC-partner institution in the New England region providing instruction and career development for intelligence analysts, as well as a world leading center for high-fidelity war gaming.

PI on NASA EPSCoR award (\$122,539;) titled "*Catalyzing Maine's Cybersecurity Future through Visioneering*". A one-year project to organize and implement a "visioneering" process, which will include hosting a 3-day "visioneering" workshop, to bring together academic, government, and business leaders and practitioners to generate ideas and potential solutions for addressing the cybersecurity vision and applied research growth opportunities in Maine and the great New England Region.

Co-PI on DHS award (\$324,373; EMW-2016-PU-00280-S01) titled "*Enhanced Port Cybersecurity and Reduced Risk with BetaPort*". A three-year project to identify core cybersecurity vulnerabilities and capabilities in Port Resiliency/Recovery and Maritime Domain Awareness (MDA) that inform and direct future training/exercise programs, foster a culture of best practices in cyber security hygiene with the ability to build rigor, security, and safety into its systems.

Co-PI on NSF award (\$300,461; DGE-1438826) titled "*Maine Virtual Cybersecurity Collaborative Learning Laboratory*". A two-year project to pilot and evaluate the feasibility of implementing an inter-institutional virtual cyber security collaborative learning laboratory as a shared educational environment that provides Maine students in different locations to gain practical collaborative experience in preventing and mitigating cyber-attacks in real-time. The research design allows for the evaluation of the feasibility of implementing the inter-institutional laboratory in five, four-hour rounds of simulations over three semesters when students respond to Denial of Service and Malware exploit scenarios. Evaluation research will utilize a mixed-method approach, with an emphasis on interviews, surveys, observations, and usage data to assess faculty and student

attitudes toward and use of the virtual cybersecurity laboratory, and the extent of cooperation among the three institutions in the implementation of the laboratory. Quantitative analysis of student performance data will allow for preliminary assessment of the promise of the virtual laboratory for achieving the expected learning outcomes related to Protect and Defend cyber security scenarios.

University of Maine System Strategic Investment Fund consecutive grants for 2009-2010 and 2010-2011 “*Cyber Defense Competitions as a Method to Raise Awareness and Interest of High School Students in University of Maine System STEM Programs*”. The aim of the project is to raise awareness and interest of high school students in University of Maine System (UMS) Science, Technology, Engineering and Mathematics (STEM) programs while simultaneously availing service learning opportunities to computer science and related program undergraduates. The project is based on the successful efforts and progress made to date by state and national programs that serve as models.

Co-Trustee Professorship for AY 2007-2008 (and beyond) “*A Prototype Wildlife Detection System for Animal-Vehicle Collision (AVC) Prevention*”. The purpose of this study is to build upon and extend research in this area by designing and implementing a prototype wildlife detection system based on an “intelligent” multi-sensory-node network design that can reliably detect wildlife in the roadway while simultaneously preventing the production of false positive alerts.

Creative Works:

Design and implementation of first NSA/DHS recognized “distributed” Center of Academic Excellence in Information Assurance Education (CAE/IAE) in 2014. This CAE/IAE is distributed among the universities of the University of Maine System and draws upon unique resources available at each institution. The key elements of this CAE/IAE are highly collaborative faculty and administration and the ability to seamlessly offer shared and secure laboratory resources (e.g., computer networks and sandbox environment).

“Your Password, Your Identity, Your Privacy” instructional unit. This unit was selected by the EDUCAUSE Security Task Force for international distribution during Fall, 2004. As part of National Cyber Security Awareness Month (<http://www.staysafeonline.info/home-news.html>), the Security Task Force compiled a CD that contains Cybersecurity Awareness Resources for the Higher Education Community. The availability of the CD was announced during the 2004 EDUCAUSE Live Event on "Campus and National Approaches to Cybersecurity Awareness." An archive of the event is available at <http://www.educause.edu/LIVE0411>. Every attendee of the EDUCAUSE Annual Conference in Denver received a CD as part of their registration materials.

Database-backed Website Project, University of Maine at Fort Kent, Summer 2001 – Fall 2001. As co-recipient of a University of Maine System Trustee Professorship I designed and implemented a database and associated website to allow visitors to learn more about the UMFK Lichen Research Program containing information on more than 9000 lichen specimens.

Internet Projects, University of Maine at Fort Kent, Fall 1998 – Fall 1999. Evaluation of Internet-based distance education delivery tools. WebCT course design and development for Computer Applications courses.

PAC-MAINE software application designed to address governor's request for innovative methods for raising students aspirations within the state of Maine. PAC-MAINE initially distributed to all public/private secondary education guidance and counseling offices throughout New England. Subsequent requests for PAC-MAINE have come from as far away as California. PAC-MAINE has been showcased by BBS Press Service, which serves 235 electronic bulletin boards in the U.S., Canada and overseas. Newsday requested information on PAC-MAINE, and literature was forwarded to the software review editors of 100 national computer magazines and 250 educational publications. Initially designed to address low student educational aspirations within the state, PAC-MAINE has spread across the entire country and Canada. Congratulatory letters from

Governor John McKernan, Commissioner of Education Eve Bither, and University of Maine System Chancellor Robert Woodbury, available upon request.

UMS/ITV System Integration Prototype designed to integrate and improve testing, evaluation and grading via interactive television system of Maine. Developed as part of Annenberg/CPB grant awarded during 1991-1992 academic year. Continued development of prototype into full-scale system serving all ITV receive sites as part of second successful Annenberg/CPB grant awarded during 1992-1993 academic year. Presentations made at EDUCOM '92 and Computer on Campus national conferences.

OFACET (Online Faculty Evaluation Tool) prototype designed to address confidentiality and other concerns of University of Maine at Fort Kent administration, faculty and student concerns regarding faculty evaluation by students. Application development discontinued during sabbatical/educational leaves 1993-1995, development of full-scale application evolved into Internet-based Excel-A-Ratesm service.

GRE Word Study Software application designed to assist UMFK community in preparation for Verbal component of Graduate Record Examination. Application development discontinued during sabbatical/educational leaves 1993-1995, further development of full-scale application currently in progress.

UMSServe Web Site specification development.

Recent Honors:

Selected to serve as an NSF-sponsored *C5 Teaching Fellow*. C5 stands for Catalyzing Computing and Cybersecurity in Community Colleges. Teaching Fellows review curriculum and provide mentorship among performing other services to strengthen cybersecurity education. More details available at <https://www.c5colleges.org/> (Summer 2017).

Selected as a university faculty workshop participant in the "SEcurity EDucation (SEED) workshop". The project is sponsored by the National Science Foundation under the auspices of Syracuse University. The multi-day workshop provides training to instructors who are interested in using SEED labs in their courses. During the workshops, instructors will work on the SEED labs of which they are most interested (Summer 2017).

Selected as a university faculty workshop participant in the "Capacity Building for Control Systems Collaborative Project". The project is sponsored by the Department of Defense-National Security Agency Information Assurance Scholarship Program sponsored project under the auspices of Jacksonville State University. The multi-day workshop covered control systems security curriculum development and hands-on exercises (Summer 2017).

NIST sponsored participation in "4th Annual Shaping the Future of Cybersecurity Education 'Navigating the National Cybersecurity Education Interstate Highway' Workshop" (September 16-19, 2013).

NIST sponsored participation in "3rd Annual Shaping the Future of Cybersecurity Education 'Connecting the Dots in Cyberspace' Workshop" (October 30 – November 1, 2012).

Maine Innovation Engineering Leadership Institute. Selected to participate in training to become eligible to teach courses in UMS Innovation Engineering minor and graduate certification offerings (March 5-7, 2012).

Homeland Security Faculty Development Workshop. Selected as one of only 30 university faculty members nationwide offered to participate in this program. The program was sponsored by the University and Agency Partnership Initiative (UAPI), a program of the Naval Postgraduate School Center for Homeland Defense and Security

(CHDS). The purpose of the program was to bring together institutions nationwide dedicated to advancing homeland security education and increase the number and diversity of students receiving homeland security education, accelerate the establishment of high-quality academic programs, and provide opportunities for collaboration that create an intellectual multiplier effect that furthers the study of homeland security. Summer 2011.

Grant partner (\$10,000 component of \$123,720) for “Advancing Higher Education through Excellence in Online and Technologically Enhanced Instruction: Implementing an On-campus Teaching and Technologies Laboratory”. Specifically for networking technologies in support of new proposed Associate of Science in Information Security degree). AY 10/11.

Co-Principal Investigator for (\$48,219) sustainability planning and bridging grant entitled “Biomass Energy Resources in the St. John Valley, Aroostook County, Maine: Development Potential, Landscape Implications, and Replication Possibilities”. FY 2010.

Principal Investigator for (\$30,000) multi-campus collaborative project entitled “Cyber Defense Competitions as a Method to Raise Awareness and Interest of High School Students in University of Maine System STEM programs”. AY 10/11.

Maine Cyber Defense Competition (<http://mecdc.umfk.maine.edu>) Director (2010)

Invited by Educational Testing Service (ETS) to serve as reader for Advanced Placement (AP) – Computer Science exams

Principal Investigator for (\$30,000) multi-campus collaborative project entitled “Cyber Defense Competitions as a Method to Raise Awareness and Interest of High School Students in University of Maine System STEM programs”. AY 09/10.

Co-recipient of University of Maine System Trustee Professorship (\$12,500) for design and implementation of “A Prototype Wildlife Detection System for Animal-Vehicle Collision (AVC) Prevention” a project to build upon and extend research in this area by designing and implementing a prototype wildlife detection system based on an “intelligent” multi-sensory-node network design that can reliably detect wildlife in the roadway while simultaneously preventing the production of false positive alerts. AY 07/08.

Information Assurance Education Graduate Certificate Program. Selected, with Professor Gauvin, as two of only 25 college and university faculty members nationwide offered to participate in this program. The program was sponsored by the National Security Agency (NSA) and delivered by the Purdue University Center for Education and Research in Information Assurance and Security (CERIAS). Program objective was to assist NSA with their goal of filling the need for trained faculty to develop and teach Information Assurance Program at colleges and universities across the nation. Summer 2003.

Co-recipient of University of Maine System Trustee Professorship (\$12,500) for design and implementation of online Web accessible lichen herbarium records collection. Summer 2001.

Innovative Teaching Fund grant (\$1,500) during academic year 1998-1999 for design and implementation of a distance delivery model and assessment methodology for instruction delivered from a distance to locally situated computer students. Courses delivered to local Maine campus students from Ohio during academic year.

Innovative Teaching Fund grant (\$1,440) during academic year 1997-1998 for design and implementation of student technological intern program to enhance the quality and effectiveness of Computer Applications majors' educational experience and to augment

the existing pool of skilled human resources available for the completion of on-campus computer projects.

University of Maine System Tri-campus Consortium grant (\$7,300) awarded to support continued beta testing and piloting of a Web-based online faculty/course evaluation system during Spring 1997 semester.

Faculty Development grants averaging \$1,500 per year since 1987 to support attendance and participation in international conferences (e.g., EDUCOM, EDUCAUSE).

United States Department of Education, Office of Bilingual and Minority Language Affairs bilingual/multicultural fellowship (\$20,000) during academic years 1994 - 1996.

UMFK Innovative Teaching Fund (\$3,025) for Web-based assessment tools.

S. Annenberg/CPB multiple grants awarded in support of UMS/ITV/Software Integration Prototype development during academic years 1991 - 1993.

Awarded undergraduate computer science teaching fellowships at the University of Vermont, Burlington, during academic years 1984 - 1986.

Pinkham Family Trust Fund Scholarship (\$7,000) 1984.

Community Service:

Civil Air Patrol (033 – County composite squadron based at Caribou, ME) serve as Transport pilot and Aerospace Education Officer (2004-present). Hold rank of Major. Conduct fire patrol flights throughout summer months.

Association of Small Computer Users in Education (ASCUE) 2009 Program Committee (2000).

EDUCAUSE Annual Conference proposal evaluator (2009).

Educational Testing Service (ETS) reader for Advanced Placement (AP) – Computer Science exams (invited 2008).

Northern Maine Community College Computer Information Systems Advisory Committee (2007-2008).

EDUCAUSE Annual Conference proposal evaluator (2005).

El Paso Community College. Provided password instructional unit to serve 25,000 students (2005).

Phi Delta Kappa (North Central Florida chapter) Executive Board member and editor of PDK News (1994 - 1995).

Offered computer consulting regularly to local departments, organizations and businesses since 1990.

Offered "Computers - Why all the Fuss?" course to summer Elderhostel program participants (1991).

Offered three day ENABLE integrated software seminar to county National Guard officers, (Spring 1988).

Offered following workshops to community residents and businesses (Spring 1988):
Introduction to Microcomputers, Intro. DOS, and Intermediate DOS

Co-development of Lichenological database using the SMART integrated software system.

St. Mary's Parish Advisory Council Member (1991 - 1993).

St. Mary's Reader (1988 - Present).

Volunteer Ambulance attendant (1983 - 1984).

Membership:

IEEE (2009-).

EDUCAUSE (1999 -).

Round Table Group (Expert Witness Search and Referral firm) (2008-).

Phi Delta Kappa (1994 -).

Civil Air Patrol (2004-).

Association for the Advancement of Computing in Education (2003 -).

Association for Educational Communications and Technology (1994 -).

Upsilon Pi Epsilon national computer science honor society (1986 -).

Association of Computing Machinery (1988 -).

Associated Faculties of the University of Maine System (1987 -).

Maine State Teachers Association (1987 -).

Maine Municipal Association (1979 -).

Aircraft Owners and Pilot Association (1996-).

Certifications:

ISC² **Certified Information Systems Security Professional (CISSP- 434845)** (2014-)

EC-Council **Certified Ethical Hacker (CEH - ECC966439)** (2013-)

SLOAN-C Online Teaching Certified-specialized in Blended Learning (2012-)

CompTIA **Security+** (**COMP001020100212**) (2010-)

FAA (Airplane Single Engine Land) rated Private Pilot (1990 -)

Maine Emergency Medical Technician (1983 - 1987)

Maine State and PADI Certified Scuba Diver (1988 -)

Certified Class II (CDL) Driver (1979 -)

Maine State Licensed Guide (1978 -)