

Timothy M. Henry, Ph.D, PMP

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Profile

Timothy M. Henry, Ph.D., PMP, has taught computer science concepts and managed information systems technology projects for over 40 years. His leadership style and excellent communication and presentation skills enable him to work effectively with all levels—from executives and staff to students and faculty. As a result, he has been a successful leader on government and industry projects and in the classroom as an instructor in academic, technical, and project management subject areas. His professional expertise encompasses many areas of information technology—artificial intelligence, cybersecurity, operating systems, implementation, testing, and policy. He has extensive experience developing and delivering training and college-level courses in lecture and online formats for new and traditional technologies. He has held leadership roles in program assessment and accreditation. He has co-authored three award-winning textbooks, is bilingual in English/Spanish, and has maintained the Project Management Professional (PMP) Certification since 2001.

Areas of Expertise

- Secure application development and cybersecurity risk assessment and planning
- Artificial intelligence, machine learning and ethical implications of emerging technologies.
- Development of online courses with a student-centered pedagogy on multiple learning management systems.
- Program design and implementation for faculty and staff development
- Leadership in the novel use of cutting-edge mobile, web, and interactive 3D technologies
- Assessment and accreditation methodologies
- Strategic planning and budgeting
- Management of entire software project lifecycle for site-, state- and corporate-wide systems

Professional Experience

Assistant Professor, Rhode Island College, Rhode Island

2023-Present

- Developed and taught undergraduate courses in Artificial Intelligence, Machine Learning, Digital Forensics, and Database Programming.
- Developed a new undergraduate major in Artificial Intelligence, a minor in Artificial Intelligence, and a minor in Application of Artificial Intelligence. Designed seven new courses as part of the AI program.
- Served on the leadership team for the Institute of Cybersecurity and Emerging Technologies.
- Participated in NSF and NSA workshops to develop AI and Cybersecurity education standards and was a member of the RI OPC AI Policy Task Force.
- Led the Academic Team on the RI Governor's AI Task Force.
- Mentored students on an internship project with Polaris/RIMADE, where they performed cybersecurity and other risk analyses for local manufacturers.
- Served numerous college-wide and departmental committees.

Professor, New England Institute of Technology, East Greenwich, Rhode Island

2013-2023

Graduate Director, Information Technology Department NEIT Cybersecurity Center Director

- Developed and taught undergraduate and graduate courses in a broad range of computer science areas, including Cybersecurity, Machine Learning, Project Management, Gaming Development, Operating Systems, Data Warehousing, and Data Analytics. Courses were both online and traditional lecture/lab classroom courses.
- Led NEIT's successful effort to obtain the NSA Center of Academic Excellence in Cyber Defense Education designation.
- Oversaw student research and subsequent implementation of a cloud-based solution that resolved the significant classroom challenge of using multiple virtual machines to teach cybersecurity and networking classes. Lead the selection and transition of cybersecurity classes to a cyber range.
- Served on Rhode Island's Computer Science Education Standards Advisory Committee tasked with developing the RI K-12 CS Education Standards.
- Coordinated and planned curriculum for associate-, bachelor-, and graduate-level cybersecurity degree programs. Guided course development in programs to ensure that all courses adhere to course and program objectives and engage students.
- Managed Information Technology Department graduate programs, coordinated adjunct faculty, student services issues, and the transition of the program from a classroom to an online/classroom format.
- Supervised Master's Projects/Theses for over 100 graduate students.
- Managed student health and clinic evaluation information migration for eight Health Sciences academic departments.
- Served on team that traveled to Saudi Arabia to perform an Academic Assessment of the Saudi Technical Trainer College.

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Adjunct Assistant Professor, University of Rhode Island, Kingston, Rhode Island Department of Computer Science and Statistics

2001-2012

- Developed and taught undergraduate and graduate courses in many topics, including software engineering, databases, professional ethics, operating systems and networking, data structures, and digital forensics.
- Oversaw Software Engineering Apprenticeship intern program and maintained contact with numerous industry partners for outreach and support. Program was used as a key assessment metric for the department's Bachelor of Science degree program.
- Produced over 200 lecture videos using multiple methodologies to present material for use in online and hybrid courses. Produced videos for various events and departments at URI, including a Commencement broadcast, an Alumni Association fundraising campaign and the annual Distinguished Achievement Awards. Produced nearly 200 VideoNotes (short video lectures) for use with two textbooks.
- Taught multiple online courses or courses having a significant online component. Developed own learning management system prior to school's adoption of an LMS.
- Served as an Online Teaching Fellow and Mentor for the department. Member of the department's Undergraduate Committee tasked with implementing URI's assessment policy and procedures.
- Supervised graduate students in research projects in interactive 3D augmented reality, wireless sensor networks and image analysis for digital forensics. Served as thesis advisor for Master and Ph.D candidates.
- Supervised department IT staff in the implementation of new hardware, servers and systems for teaching classrooms using multiple operating systems and a multiprocessor parallel cluster system. Oversaw student support of department web site.

Senior Manager - Project Management Trainer, CSC, Covansys (formerly CBSI), Providence, RI 1998-2001

- Developed and taught courses for internal and client team leaders and project managers in project management concepts, tools and procedures.
- Served on the Covansys Corporate Project Management Steering Committee. Developed corporate policies and training programs to standardize and assess project management across the organization.
- Led team of instructional designers and subject matter experts in developing four technical courses on implementing and supporting state- and nationwide lottery systems. The systems ranged from in-store embedded terminal systems to back-end mainframe-hosted relational databases. Additionally, the project team was responsible for developing a corporate-wide mentoring program for the client.
- Project manager for a major hospital and healthcare corporate financial system Year 2000 update project.
- Project manager/senior analyst for the Covansys internal auditing system for lotteries maintenance project.

Deputy Project Manager, American Management Systems, Providence, Rhode Island

1996-1998

- Assumed the role of Deputy Project Manager shortly after implementing a state-wide child welfare management system. Responsibilities included all financial management for a multi-million dollar project, completion of remaining obligations from the original contract, including federal reimbursement modules, interfaces to external systems, hundreds of operational reports spanning all system areas, and any system defects.
- Coordinated training of over 700 state staff in system use.
- Responsible for the analysis and planning required to convert existing data from over a dozen legacy systems into a new single integrated system.

Associate Program Manager, PSI International, Inc., West Mystic, Connecticut

1992-1996

- Project Manager for developing a user interface to the US Coast Guard Academy course scheduling system. New system was designed to be intuitive and easy to use so faculty did not require extensive training in its use.
- Project Manager for numerous mobile and workstation PC projects in various disciplines, including Healthcare Inspection and Certification, Clinical Trial Monitoring, Police, Fire and EMS Data Entry and Reporting, and Real Estate Appraisal. Managed several projects simultaneously involving employees at three locations performing applications development, user support and information center services, network support, technical library services, and computer operations tasks.
- Responsibilities in projects involved system design and direct supervision in the development of real-time operational information systems integrating pen-based computers and PCs along with UNIX workstations. Systems provided real-time access to data through cellular or RF communications.

Assistant Professor, United States Coast Guard Academy, New London, Connecticut

1988-1992

- Held teaching appointments in the Mathematics Department (1988-1989) and Computer Science Department (1990-1992). Initiated program assessment in Computer Science under the "Total Quality Management."
- Served as chairman of the Faculty Senate Committee on Curriculum and the Academic Computing Committee member and, as chairman of the Faculty Senate Committee on Curriculum, reviewed departmental program changes to ensure compliance with program accreditations.
- Coordinated various university-wide ceremonies and functions, such as graduation ceremonies.

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Information Resources Manager (CIO), U.S. Coast Guard Training Center, Yorktown, Virginia 1983-1987

- Managed the Information Resources Department for the Coast Guard's largest training command. Received Coast Guard Commendation Medal for work. This position entailed:
 - Developing and delivering training courses on all levels of computer usage for site faculty. Developing computer training programs for delivery Coast Guard-wide as students came through the training center.
 - Strategic planning and budgeting for information technology and training resources.
 - Automating many manual workflows throughout the site using personal computers

Selected Professional Publications

- F. Carrano and T. Henry, *Secure Data Structures and Algorithms with C++ : Walls and Mirrors, Eighth Edition*. Boston. Pearson Education, 2025, (Co-author for editions 6 and later). Seventh edition won TAA 2018 McGuffey Award.
- F. Carrano and T. Henry, *Data Structures and Abstractions with Java, Fifth Edition*. Boston. Pearson Education, 2019, (Co-author for editions 4 and later). Won TAA 2019 Textbook Excellence Award
- S. Baase, T. Henry, *A Gift of Fire: Social, Legal and Ethical Issues for Computing Technology, Fifth Edition*. Boston, Pearson Education, 2018 (Co-author for edition 5 and later). Won TAA 2018 Textbook Excellence Award
- T. Ren, T. Henry, L. DiPippo, K. L. Bryan, V. Fay-Wolfe, *Routing-Aware Coloring in TDMA for Time-Critical Data Aggregation in Wireless Sensor Networks*, Proceedings of the International Conference on Wireless Networks, July 2008
- D. Tucker, L. DiPippo, V. Fay-Wolfe, K. L. Bryan, T. Ren, W. Day, M. Murphy, T. Henry, S. Joseph, "Energy-efficient MAC for Broadcast Problems in Wireless Sensor Networks," Proceedings of the 3rd International Conference on Networked Sensing Systems, June 2006
- A. Uvarov, L. DiPippo, V. Fay-Wolfe, K. Bryan, P. Gadrow, T. Henry, M. Murphy, P. Work, L. DiPalma, "Static Real- Time Data Distribution," Proceedings of the 10th IEEE Real-Time and Embedded Technology and Applications Symposium, Toronto, Canada, May 2004, pp. 502-509.
- T. Henry, B. Ravikumar, "Foveated Texture Mapping with JPEG 2000 Compression," Proceedings of the IEEE Signal Processing Society 2001 International Conference on Image Processing, October, 2001

Selected Grants and Funding

- "Real-Time Data Distribution in Asynchronous Network Communications (Real-Time Data DANCE)" for \$600,000 from National Science Foundation, 9/1/04 - 8/30/07 with Lisa DiPippo and Victor Fay-Wolfe.
- "Capacity Building: Computer and Network Forensics" for \$300,000 from National Science Foundation, 7/1/04 - 6/30/07 with Lisa DiPippo and Victor Fay-Wolfe.
- "3D Partnership for Interactive Visualization" for \$450,000 from University of Rhode Island, 7/1/04 - 6/30/07. with Jean-Yves Hervé and Ron Hutt

Education

- **Ph.D., Applied Mathematical Sciences**, University of Rhode Island, Kingston, Rhode Island
- **Master of Science Degree, Computer Science**, Old Dominion University, Norfolk, Virginia
- **Bachelor of Science Degree, Mathematics**, U. S. Coast Guard Academy, New London, CT

Professional Affiliations and Activities

- Association of Computing Machinery (ACM) — Computer Science SIG
- Project Management Institute (PMI) / Local chapter, OSPMI
- Textbook and Academic Author's Association (TAA):
 - Textbook Excellence Award evaluator

Community Activities

Board of Directors; Thundermist Community Health Center

2003-PRESENT

Board Chair; Thundermist Community Health Center

2015-2018

- Member of Executive Committee, Human Resources Committee and CEO Search Committee. Thundermist is a private, non-profit community health center serving Woonsocket, West Warwick and South County with a governing board of directors.
- Former member of Finance Committee during expansion and construction of new building in Woonsocket, RI , and the opening of the new site in West Warwick, RI. Committee oversaw all project activity, contracts and funding.
- Participated in numerous fundraising outreach events for the health center.

Los Piñares, Honduras, Clinic Advisory Board, Shoulder-to-Shoulder

2006-2012

Los Piñares, Honduras, Project Leader

2006-2009

- Committee provides oversight for a medical clinic in an impoverished mountainous region of Honduras. While project leader, directly managed the construction of the clinic, stocking of medical supplies and equipment and the hiring of workers. Initiated several successful food and education programs.

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West Warwick Juvenile Hearing Board	2004-2006
West Warwick Technology Committee	2004-2005
Chair, HOPE Worldwide-New England Non-Profit	1992-2002, 2022-Present

Additional Professional Experience

Consultant, MicroSystems Integration, West Mystic, Connecticut	1995-1997
Operations and Electronics Officer, U.S. Coast Guard Cutter Madrona, Portsmouth, Virginia	1981-1983

Visiting Professor, DeVry University Online	2007-PRESENT
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- Taught online undergraduate courses using Pearson's eCollege and Canvas learning management systems. Course topics included in organizational analysis, game engine and physics engine design and development, 3D multimedia programming, and web applications development using ASP .NET and HTML/Javascript.
- Developed online course shells (templates) for most of the courses listed above for use by other faculty. Shells included course objects, assessments, tests and quizzes, lectures, discussion topics, assignments and labs.

Co-Owner, Tita's Tailors and Cleaners	2021-PRESENT
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- Responsible for administration, human resources, marketing and operational support for one of the largest, family run tailor and dry cleaners in Rhode Island.