Ronald Mraz Ph.D.

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**Qualifications**

Over 35 years of research, development and management experience in HPC Computational Science, Smart Grid Infrastructure, High Performance Supercomputing Architectures, Message Passing Interfaces, Distributed Systems, Shared Memory Architectures, Operating Systems, Control Theory, and Information Assurance. My teaching experience centered in Cyber-Security, High Performance Computing (HPC), Computational Science, Computer Architecture, Computer Organization, Software Engineering, Machine Learning and Operating Systems.

**Experience**

**US Coast Guard Academy (USCGA), Full-Time Lecturer**. New London, CT. Fall 2018 to 2020. Department of Electrical Engineering and Cyber Systems.Undergraduate level Instruction in Introduction to Information Security, Software Engineering, Introduction to Computing and Machine Learning.

**The University at Albany (SUNY), Adjunct Professor**. Albany, NY. Fall 2017 and Spring 2018, Computer Science Department. Graduate level instruction in Computer Organization and Operating Systems.

**Owl Computing Technologies, Inc.** Board Chairman, President, CEO, CTO and Founder. (Now Owl Cyber Defense Solutions, LLC, a DC Capital Partners portfolio company) Owl Computing markets and sells special purpose internet firewalls with the security policies enforced by a hybrid HW/SW system. The company was acquired by in 2017 by DC Capital Partners. 1998- April 2017.

**IBM Research, Hawthorne, NY.** Research Staff Member. As an RSM Scientist I researched, High Performance Computing (HPC) Architectures and Message Passing System interfaces for shared memory (PVS and AS/400) and distributed memory systems (RP3 and Vulcan). Additionally, partnered with Argonne National Labs for a scalable media server incorporating a zero-copy I/O interface (ZATM). Promoted from Logic Designer to Scientist in 1992. 1984-2005.

**Education**

Ph.D., 1992, Electrical and Computer Engineering, **Carnegie Mellon University**, (IBM Full-time Fellowship)

MS, 1984, Electrical Engineering, **Syracuse University**

BS, 1980, Electrical Engineering, **Drexel University**

**Representative Publications**

**Enhanced Iceberg Information Dissemination for Public and Autonomous Maritime Use**, in World Academy of Science and Technology, International Journal of Transport and Vehicle Engineering, Vol: 14, No. 4, 2020.

**Secure Cross Border Information Sharing Using One-Way Data Transfer Systems**, Presented at ISGIG, the International Symposium on Global Information Governancein Pisa, Italy. 2009.

**Server Network Scalability and TCP Offload**, in USENIX Annual Technical Conference, 2005, Pages 209 – 222.

**Performance Considerations in Web Security**, Chapter in Certification and Security in E-Services. IFIP – The International Federation for Information Processing, vol 127. 2002, Pages 57-71, Springer, Boston, MA.

**Secure Blue: an architecture for a scalable, reliable high-volume SSL Internet server,** in the Annual Computer Security Applications Conference (ACSAC) Year: 2001, New Orleans, Louisiana, 2001.

**Awards and Professional Associations**

IEEE Senior Member Institute of Electrical and Electronic Engineers and Association for Computing Machinery

CT Quality Innovation Awards in 2009 and 2010. Award recognitions based on the Malcolm Baldrige criteria.

Multiple Group, innovation and IBM Research Division Patent Issue and Filing Awards.

IBM Fellowship to study full time (3 years) at Carnegie Mellon University. (1989 - 1992)

IBM Fellowship to study full time at Syracuse University.

A complete list of publications, Awards and 55 US patents in the areas of computer architecture, operating systems, networking and information assurance listed in the CV and LinkedIn pages.