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## Education

Ph.D. Computer Science	State University of New York at Albany, 2006
M.S. Computer Science	State University of New York at Albany, 2000
B.S. Computer Science	Siena College, 1997

## Professional Career

2017 – present	Interim Dean of Math & Science	The College of Saint Rose
2015 – 2017	Professor	The College of Saint Rose
2012 – 2015	Professor, Department Chair	The College of Saint Rose
2007 – 2012	Associate Professor, Department Chair	The College of Saint Rose
2001 – 2007	Assistant Professor	The College of Saint Rose
2012 – 2016	Summer Adjunct Faculty	Rensselaer Polytechnic Institute
1998 – 2001	Software Engineer	M. M. Hayes Company, Inc. (Kronos)

## Ph.D. Dissertation

“A Mixture of Experts Approach to Protein Structural Domain Boundary Prediction,” Department of Computer Science, State University of New York at Albany

## Research Interests

Machine learning, heuristics for intelligent search, artificial neural networks, ensemble learning and Bayesian networks, bioinformatics, computer networking, discrete mathematics and undergraduate/graduate computer science curriculum development and assessment.

## Professional Societies & Affiliations

ACM	Full Member (2012 – present)
Capital Area Technology Association	Board Member (2013 – present)
CCSC Northeast Region	Program Committee Member (2011 – present)

## Teaching

Data Communication (CSC 504, The College of Saint Rose)

Introduction to Computer Science (CSC 111, The College of Saint Rose)

\*Fundamentals of Computer Security (CSC 115, The College of Saint Rose)

Introduction to Programming (CSC 202, The College of Saint Rose)

Data Structures (CSC 302, The College of Saint Rose)

Computer Networks (CSC 344, The College of Saint Rose)

\*Advanced Networking (CSC 444, The College of Saint Rose)

\*Bioinformatics I (CSC 513/414 graduate/undergraduate cross-list, The College of Saint Rose)

\*Bioinformatics II (CSC 514/415 graduate/undergraduate cross-list, The College of Saint Rose)

\*Programming in C++ (CSC 382, The College of Saint Rose)

Introduction to Artificial Intelligence (CSC 535/342 graduate/undergraduate cross-list, The College of Saint Rose)

\*Forensic Computing (CSC 317, The College of Saint Rose)

\*Graduate Seminar in Pattern Recognition (CSC 555, The College of Saint Rose)

Discrete Mathematics (MAT 295, The College of Saint Rose)

Artificial Intelligence and Heuristics (CSCI-6960, Rensselaer Polytechnic Institute)

Introduction to Artificial Intelligence (CSCI-4150, Rensselaer Polytechnic Institute)

Computer Science 1 (CSCI-1100, Rensselaer Polytechnic Institute)

Discrete Structures (ICSI-210, State University of New York at Albany)

Computer Security Basics (ICSI-124X, State University of New York at Albany)

Selected Interdisciplinary Topics: "The Threat Within" (UUNI-350, State University of New York at Albany)

Introduction to Computer Science (ICSI-201N, State University of New York at Albany)

\* I created and implemented these courses

## Recent Publications

MacDonald, I., O'Rourke, J., Milonovich, B., Goldschmidt, D., "An Interdisciplinary Approach to Injecting Computer Science into the K-12 Classroom", Journal of Computer Sciences in Colleges (ACM), CCSCNE 2011, Western New England College, Vol. 26 Issue 6, June 2011

O'Rourke, J., MacDonald, I., Goldschmidt, D., "Learning Computer Science Concepts Using iPhone Applications", Journal of Computer Sciences in Colleges (ACM), CCSCNE 2010, University at Hartford, Vol. 25 Issue 6, June 2010

MacDonald, I., Berg, George, "A Mixture of Experts Method for Predicting Protein Domain Boundaries", Proceedings of the Seventh IEEE International Conference on Bioinformatics and Bioengineering (BIBE), Harvard Medical School, Boston, MA, 2007

MacDonald, I., "Protein Structural Domain Boundary Prediction" (book), VDM Verlag Dr. Müller, ISBN 978-3-8364-3720-2, 2008

## Committee Membership and Service

Faculty Review Committee (2014 – present)

Middle States Accreditation Committee, working group co-chair (2012 – 2013)

Graduate Academic Curriculum Committee (2008 – 2015)

Academic Technology Committee (2002 – 2003, 2008 – present)

Faculty Salary Committee (2003 – 2013), co-chair 2008 – 2013

Rank and Tenure Committee (2007 – 2010)

Presidential Search Committee (2011 – 2012)

Professional Development Committee (2004 – 2009)

Middle States Periodic Review Committee (2008)

## Recent Conferences & Presentations

Presenter, "Virtual-Mentorships with Measured & Verified Co-Curricular Transcripts Scale Workforce Ready Cyber Candidate Supply", National Initiative for Cybersecurity Education (NICE) 2017 Conference, Dayton, OH, November 8, 2017.

Presenter/Moderator, "Cloud Services", Capital Area Technology Association, Albany, NY, November 2014

Presenter/Moderator, "A Panel Discussion on Internet Protocol version 6 (IPv6)", Capital Area Technology Association, Albany, NY, March 2012

Panelist, “Connecting a Million Minds”, Time Warner Cable grant, Albany, NY, June 2011

Presenter, “Encoding, Storing and Moving Digital Data”, Math Science Partnership (MSP) grant workshop, Albany, NY

Presenter, “Learning Computer Science Concepts using iPhone Applications”, CCSCNE 2010 Conference (ACM), University at Hartford, Hartford, CT, April 2010

Keynote Speaker, “A Future of Computational Thinking”, 2010 Honors Convocation, The College of Saint Rose, Albany, NY, March 2010

Keynote Speaker, Science Teachers Association of New York State (STANYS) Awards Ceremony, Albany, NY, June 2008

Presenter, “A Mixture of Experts Method for Predicting Protein Domain Boundaries” at the Seventh IEEE International Conference on Bioinformatics and Bioengineering (BIBE2007), Harvard Medical School, Boston, MA, October 2007

### Recent Peer Review Activities

Referee, XXII International Conference of the European Federation for Medical Informatics (MIE2009), Sarajevo, August 30 – September 2, 2009

Program Committee Member, International Joint Conferences on Bioinformatics, Systems Biology and Intelligent Computing (ISIBM), Shanghai, China, August 3 – 6, 2009

Reviewer, XXI International Congress of the European Federation for Medical Informatics (MIE2008), Göteborg, Sweden, May 25 – 28, 2008