

CURRICULUM VITAE

Dr. Eric A. Breimer
Associate Professor
Computer Science Department
Siena College
515 Loudon Road
Loudonville, New York 12211
518 786-5084
ebreimer@siena.edu

1. Professional Employment:

Year	Institution	Rank	Subject Field
2008-present	Siena College	Associate Professor	Computer Science
2002-2008	Siena College	Assistant Professor	Computer Science
1999-2002	Rensselaer Polytechnic Inst.	Instructor	Computer Science

2. Degrees/Certification Earned:

Year	Degree/Certification	Institution
2002	Ph.D., Computer Science	Rensselaer Polytechnic Institute
2000	M.S., Computer Science	Rensselaer Polytechnic Institute
1997	B.S., Computer Science	Binghamton University
1995	A.S., Computer Science	Dutchess Community College

3. Membership in Scholarly/Professional Organizations:

President (2017), Information Systems & Computing Academic Professionals, Inc. (ISCAP)
Board of Directors (2016), Information Systems & Computing Academic Professionals, Inc. (ISCAP)
Board of Directors (2012-2015), Education Special Interest Group (EDSIG),
Association of Information Technology Professionals (AITP), Member Since 2008
Member, Upsilon Pi Epsilon, Since 2009
Member, Association for Computing Machinery, Since 1997
Member, Phi Theta Kappa, Since 1995

4. Courses Taught:

Number	Course	Institution	Taught
CSIS-390:	Web Application Development	Siena	S17, F15, F15, S14, F13, S13 F12, F11, F10
CSIS-400	Machine Learning	Siena	S16
CSIS-120:	Introduction to Programming	Siena	S16, F15, S15, F11, F10, S03
CSIS-210:	Data Structures	Siena	F14, S04, S03
CSIS-180:	Web Design	Siena	F14, S14, F13
CSIS-351	Discrete Structures II	Siena	S13, S11
CSIS-114:	Management Information Systems	Siena	F12, S12, S11, S10, F09, S09, S07, F06, S06, S05
CSIS-401:	Web Application Development	Siena	F09, S09, F07, F06
MUMD-490:	Multimedia Team Project	Siena	S10
MUMD-290:	Multimedia Development	Siena	S09, F07
CSIS-116:	Survey of Information Technology	Siena	S08, S07, F05, F04, F03, F02
CSIS-385:	Analysis of Algorithms	Siena	S07, S06, S05, S04
CSIS-010:	Introduction to Computer Applications	Siena	S04
CSIS-201:	Web Design	Siena	F04
CSIS-400:	Bioinformatics	Siena	F03
CSCI-2300:	Data Structures and Algorithms	RPI	S02, F00, S00, F99
CSCI-1190:	Beginning C Programming	RPI	F01
ITEC-1961:	Intro Data Structures and Applications	RPI	S01

5. Courses and/or Programs Developed:

Fall 2009 Information Systems Minor Sequence

In collaboration with Bob Yoder and Scott Vandenberg, proposed BOI-approved changes that formalize a three-course sequence for the Minor in Information Systems, which further strengthens the IS Minor. The sequence allows Management Information Systems (CSIS-114) to act as the gateway course for Database Applications (CSIS-115), which together act as pre-requisites to the minor's capstone course (CSIS-116).

Fall 2009 Multimedia Minor Enhancements

In collaboration with Amanda Ransom, proposed BOI-approved changes that add five new courses (CREA-117, CREA-180, CREA-310, CREA-325, and CSIS-180) to the list of Multimedia electives. In addition, changed MUMD-290 into a more suitable gateway course (MUMD-190) with no pre-requisites, which enables students to start the Multimedia Minor as early as possible adding to the accessibility of the minor for non-CS and non-Creative Arts majors.

Fall 2009 CSIS-390: Web Application Development

Proposed a BOI-approved course in Web Application Development, a hands-on laboratory based course covering the design and implementation of dynamic websites and web-based applications. This upper-level elective is based on the previously taught 400-level topics course.

Fall 2009 CSIS-180: Web Design

Proposed a BOI-approved course in Web Design for non-Computer Science majors. The course is designed to support the minors in Computer Science, Information Systems, and Multimedia and was based on the previously taught 200-level topic course.

Fall 2006 Multimedia Minor

In collaboration with Larry Medsker and Mary Ann Egan, developed a new minor in Multimedia approved by the Board of Instruction. The minor includes courses covering the fundamentals of art, multimedia systems design, web systems development, video and audio production, oral and written communication, working in teams, working with clients, and ethical behavior in the work environment.

Fall 2006 MUMD-290: Multimedia Development

In collaboration with Larry Medsker and Mary Ann Egan, developed a new course Multimedia approved by the Board of Instruction. Course covers the history of multimedia, human-computer interaction, digital representation, media compression, delivery of multimedia over the World Wide Web, image editing, animation techniques, and video processing and production.

Spring 2005 CSIS-114: Management Information Systems

In collaboration with Bob Yoder, developed computer lab activities for a service course adopted as a requirement in the School of Business. Lab include: GIS, CMC, Spreadsheets vs. Databases, Database Intro, Decision Support (3 labs), Supply Chain Management and Market Basket Analysis.

Fall 2004 CSIS-201: Web Design

Developed a laboratory-based special topics course for students minoring in computer science or information systems. Topics: web page design, website management, Internet history and structure, web protocols, client/server model, IP addresses, web servers, HTML, PHP, web graphics, Flash, E-commerce, and security/privacy issues of the Internet.

Fall 2003 CSIS-400: Bioinformatics

Developed a special topics course studying the integration of mathematical, statistical and computer methods to analyze biological and biochemical data. Topics: sequence databases, pair-wise alignment, multiple sequence alignment, protein structure, phylogenetic trees, and gene finding.

Fall 2002 CSIS-116: Survey of Information Technology

Developed a capstone course for the minor in information systems. Topics: principles of information systems, modern hardware technology, advance spreadsheet applications, database management systems, information representation, data communication networks, e-commerce, information security, HTML, and XML.

6. Instructional Material Developed:

2003-present Blackboard & Course Websites

I have developed comprehensive Blackboard courses and accompanying websites that provide resources for fellow faculty members who might teach these courses in subsequent semesters. Each course website includes the syllabus, schedule of topics, PowerPoints, handouts, project descriptions, lab files, review materials, and multimedia content.

2005-2006 CSIS-114 Instructor Lab Materials for Blackboard

In collaboration with Bob Yoder and Jami Cotler, developed 10 innovative laboratories for CSIS-114: Management Information Systems that integrate computer-based and interactive activities. Lab handouts and instructor guides are posted on Blackboard to support other faculty teaching the course. The lab activities include the use of spreadsheets and databases to implement decision support systems and expert systems, the use of MapInfo to study geographic information systems, and the use of computer mediated communication to facilitate collaboration and discussion.

7. Seminars on Teaching Methods Given or Attended:

Date	Seminar Title (add (G) if Given)
3/6/2009	School of Science Brown Bag Lunch (G), Paperless Labs – Integrating VideoPodcasts and Electronic Documents for Computer-based lab Activities
1/17/2003	Siena Mid-semester Conference on Student Engagement
9/03/2002	Siena New Faculty Orientation Seminar
5/20/2002	Siena Untenured Faculty Retreat

8. Academic Advising:

2014-present Advisor to class of 2018 Computers Science majors and undeclared science.

Date	Activity
Fall 2016	Individual meetings with 25 advisees
Spring 2016	Individual meetings with 24 advisees
Fall 2015	Individual meetings with 21 advisees
Spring 2015	Individual meetings with 16 advisees
Fall 2014	Individual meetings with 14 advisees

2009- 2013 Advisor to class of 2013 Computers Science majors and undeclared science.

Date	Activity
Spring 2013	Individual meetings with 8 advisees
Fall 2012	Individual meetings with 8 advisees
Spring 2012	Individual meetings with 9 advisees
Fall 2011	Individual meetings with 9 advisees
Spring 2011	Individual meetings with 11 advisees
Fall 2010	Individual meetings with 11 advisees
Spring 2010	Individual meetings with 9 advisees
Fall 2009	Individual meetings with 10 advisees
9/10/2009	Held academic advising orientation session

2004-2008 Advisor to class of 2008 Computers Science majors and undeclared science.

Date	Activity
Spring 2008	Individual meetings with 8 advisees
Fall 2007	Individual meetings with 8 advisees
Spring 2007	Individual meetings with 8 advisees
Fall 2006	Individual meetings with 8 advisees
5/17/2006	Attended Siena Advising Seminar
Spring 2006	Individual meetings with 8 advisees
Fall 2005	Individual meetings with 8 advisees
Spring 2005	Individual meetings with 10 advisees
4/1/2005	Organized advisee registration session and lunch
11/12/2004	Organized advisee registration session and lunch with Dr. Flatland
9/9/2004	Held academic advising orientation session
Fall 2004	Individual meetings with 10 advisees

9. Student Activities:

Date	Event	Activity/Role
5/14/2016	CS Graduation Reception	Organized program (senior recognition)
5/3/2016	CS Dept. Spring Lunch	Organized program (senior roast)
12/15/2015	CS & Math Dept. Holiday Party	Organized publicity
5/9/2015	CS Graduation Reception	Organized program (senior recognition)
4/28/2015	CS Dept. Spring Lunch	Organized program (senior roast)
12/9/2014	CS & Math Dept. Holiday Party	Organized publicity
5/17/2014	CS Graduation Reception	Organized program (senior recognition)
5/6/2014	CS Dept. Spring Lunch	Organized program (senior roast)
12/10/2013	CS & Math Dept. Holiday Party	Organized publicity
5/18/2013	CS Graduation Reception	Organized program (senior recognition)
5/7/2013	CS Dept. Spring Lunch	Organized program (senior roast)
5/12/2012	CS Graduation Reception	Organized program (senior recognition)
5/1/2012	CS Dept. Spring Lunch	Organized program (senior roast)
12/13/2011	CS & Math Dept. Holiday Party	Organized publicity
5/15/2011	CS Graduation Reception	Organized program (senior recognition)
5/3/2011	CS Dept. Spring Lunch	Organized program (senior roast)
12/14/2010	CS & Math Dept. Holiday Party	Organized publicity
5/4/2010	CS Dept. Spring Lunch	Organized informal program
12/15/2009	CS & Math Dept. Holiday Party	Organized publicity
5/16/2009	CS Dept. Graduation Lunch	Organized formal program
5/5/2009	CS Dept. Spring Lunch	Organized publicity and informal program
12/9/2008	CS & Math Dept. Holiday Party	Organized publicity and refreshments
5/6/2008	CS Dept. Spring Lunch	Organized publicity, informal program
12/10/2007	CS & Math Dept. Holiday Party	Organized publicity, recruited students
5/8/2007	CS & Math Dept. Spring Lunch	Organized publicity, informal program
12/12/2006	CS & Math Dept. Holiday Party	Organized publicity, recruited students
5/9/2006	CS & Math Dept. Spring Picnic	Organized publicity, volleyball
12/14/2005	CS & Math Dept. Holiday Party	Organized publicity, recruited students
9/22/2005	CS & Math Dept. Welcome Party	Organized publicity, recruited students
5/10/2005	CS & Math Dept. Spring Picnic	Organized publicity, recruited students
12/16/2004	CS & Math Dept. Holiday Party	Publicity, tree decorating

5/11/2004	CS & Math Dept. Spring Picnic	Organized publicity, volleyball
12/12/2003	CS & Math Dept. Holiday Party	Organized refreshments, decorations

10. Other Teaching Related Activities:

a. Independent Study Supervisor:

Semester	Project Title	Student(s)
Fall 2016	Advanced Machine Learning	Nolan Tunny
	Using Support Vector Machine to predict IAT cheating	
Spring 2015	Machine Learning	Emma Bostian, Lauren Mathews
	Using Support Vector Machine to predict IAT cheating	
Fall 2014	Advanced Web Design	Kevin Mango
	3D Web Graphics: Converting OpenGL applications to WebGL	
Spring 2014	Advanced Web Design	Kanika Cummings
	Animating basketball plays using HTML5 canvas, JavaScript and jQuery.	
Spring 2014	Advanced Web Application Development	Damian Crisafulli, Jordan Holoboski
	Using Ruby-on-Rails and Bootstrap to make a mobile first web application.	
Spring 2013	Advanced Web App. Development	Tyler Vorpahl, Corey Harris
	Designing a mobile, asynchronous web application.	
Spring 2013	Advanced Web Application Development	Carl Tompkins
	Using Frameworks to Improve Web Application Development and Security.	
Fall 2011	Applied Machine Learning	Zachary Fitzsimmons
	Detecting Implicit Association Test Cheaters Course.	
Spring 2011	Mobile Application Development	Ryan Godfrey, Collin Lefeber Thomas Mottola
	Thomas and Collin study various web development frameworks concentrating on <i>Ruby on Rails</i> . Using Ruby, they developed a robust, general-purpose message board application that can be integrated with other web applications. Ryan studied Apple's Xcode development framework and implemented an iPhone application that allows users to view Siena's campus map. All three participants shared their investigation and analysis of the pros and cons of the web development frameworks they studied (3 credits).	

Spring 2010 Advanced Web Application Development Alan DiStasio

Alan studied an array of different web application development technologies including *jQuery* library and AJAX programming techniques. Using these technologies and the PHP/MySQL framework, he implemented a social networking website (called SaintBook) as a feasibility study. A Software Engineering team later adopted this project (3 credits).

Fall 2009 Advanced Web Application Development Nick Miller

Using the PHP programming language, Nick built a web parser that converts raw XML publication data and presents it as a sorted and formatted website. This application is currently implemented live on <http://antarctic.siena-space.org> (1 credit).

Spring 2008 Advanced Web Application Development Kevin Decker

Using the PHP programming language, Kevin helped implement the custom content management system currently used by the Computer Science department and School of Science. Kevin also implemented a What You See Is What You Get (WYSIWYG) editor using JavaScript (3 credits).

Fall 2007 Advanced Web Application Development Stephanie Maloney

Stephanie studied popular open-source web-based survey systems and attempted to implement an extension to support implicit association test questions (1 credit)

Spring 2007 Advanced Web Application Development Jim Dzembo, Chris McConnell

Jim and Chris studied advanced PHP programming techniques and learned fundamental concepts in web application architecture and web content management. Together, they added key components to the Computer Science Department's Web Content Management System (1 credit each).

Spring 2006 E-Commerce & Web Applications Das Nobel, Charles Perkins

Das and Charles helped develop the prototype for the Computer Science Department's Web Content Management System. They investigated the requirements and researched alternatives and options. In the process, they learned about the latest E-commerce technologies used to support web applications and content management systems and applied them in unique ways (1 credit each).

Fall 2005 Bioinformatics Research Michael Devanandan

Michael helped develop improvements and enhancements to a sequence comparisons algorithm, which enabled the inter-comparison of every protein in the Protein Data Bank (PDB) rather than a smaller subset. He also helped develop software to divide and schedule computational experiments on multiple servers, which allowed us to better manage our computational resources. Michael learned the fundamentals of sequence comparison and clustering algorithms (3 credits).

Fall 2005 Advanced Web Design Kelly Morgan

Kelly helped redesigned Siena College's academic affairs website by collecting requirements and specifications from the VPAA's office, organizing over 300 pages of content into a central hierarchy, designing prototype templates, and implementing PHP-driven scripts for dynamically generating pages. Kelly studied fundamental web technologies including XHTML, PHP, and CSS (3 credits).

Spring 2005 Advanced Web Design & Digital Media Diana Mastrodomenico, Michael Quinn

Michael and Diana studied the World Wide Web as a medium for presenting interactive media and digital art. They researched software used in the field of digital media and graphics, including Macromedia Fireworks and Flash. They studied the principles of human computer interaction and its relevance to website design and digital media (3 credits each).

Spring 2004 Predicting Protein Structure Dan Schuldt

Dan helped prepare large-scale machine learning experiments to help predict the secondary structure of protein sequences. Dan wrote several programs to help automate computational experiments and he conducted several bench-mark experiments to test the limits of our software. Dan learned fundamentals about protein structure and prediction algorithms (3 credits).

Fall 2003 Machine Learning & Bioinformatics Nick Sitterly, Kevin Johnson

Kevin and Nick studied Support Vector Machines (SVMs), which are learning machines that can perform classification and pattern recognition. Together, they applied SVMs to predict the secondary structure of protein sequences taken from the Protein Data Bank (PDB). They implemented scripts to automatically extract data from the PDB and to convert data to the proper format. They learned fundamentals about machine learning and the protein secondary structure prediction problem (3 credits each).

b. Software Engineering Project Client:

2014-2015 Project: *Google Map-driven* and *LinkedIn-style* Alumni Connection System.
Team: Andrew Reynolds, Eduardo Cabral Da Silva, Ryan Clancy, Kaitlyn Boomhower, and Marissa Bianchi,

2011-2012 Project: Online Implicit Association Test Manager
Team FSH: Jackie Boylan, Matthew Kemmer, Mike Tanski, Matt Brancato, Nydia Negron, and Serena Moore,
Team EE: Megan DeRudder, Christopher Black, Lindsay Kulzer, Amanda Kurz, Nathan Levine and Daniel West,

2009-2010 Project: SaintBook, a *Facebook-like* social networking application for Siena College
Team: Chris Badalucco Alan Distasio, Erik Mulvaney, Dan Quickenton, Janelle Rizzo, and Michael Stellato,.

2006-2007 Project: Alumni Spotlight Web System.
Team: Anthony Angelucci, Charles Feltes, Elise Hearn, David Luck, and Chris McConnell

c. Honors Thesis Advisor:

Fall 2012 Honors Thesis Research Tyler Mann

Tyler tackled the problem of how to create new HTML and CSS standards for mobile, touch-screen, and physical gesture devices. While Tyler decided not to complete the honors program, he successfully completed the proposal part.

2010-2011 Using Machine Learning to Detect Jason Czajkowski
 Cheaters in an Implicit Association Test

Jason tackled the problem of predicting cheat during an implicit association test. Jason developed a hypothesis on how machine learning could be used to detect cheaters as well as a formally designed machine learning experiment to test the feasibility and effectiveness of the approach. While we were unable to collect data to conduct the experiment, Jason and I will continue to collaborate on this project as he begins graduate study at William & Mary.

Spring 2010 Honors Thesis Research Jason Czajkowski

In preparation for his honors thesis, Jason studied implicit association test implementation and various machine learning topic including support vector machines. Jason's goal was to tackle the problem of predicting whether or not a participant is attempting to cheat, i.e., respond deliberately, during an implicit association test which is designed to measure sub-conscious impressions and biases.

d. Honors Thesis Committee Member:

2013-2014 Non-Suicidal Self-Injury Kathryn Hagen

Provided guidance, feedback, and evaluation for Scott Burch who successfully defended his honors thesis about Social Learning Theories' Explanation for Elevated Rates of Eating Disorders and Non-Suicidal Self-Injury on College Campuses.

2006-2007 Sarbannes Oxley Act Scott Burch

Provided guidance, feedback, and evaluation for Scott Burch who successfully defended his honors thesis about the impact of the Sarbannes Oxley Act.

SCHOLARLY DEVELOPMENT

1. Publications:

Refereed Journal/Book

- 9/2016 Full Flip, Half Flip and No Flip: Evaluation of Flipping an Introductory Programming Course, Meg Fryling, Robert Yoder, Eric Breimer, Information Systems Education Journal, Vol. 14, Num. 5, pp. 4-16, 2016.
- 12/2012 Market Basket Analysis for Non-Programmers, Eric A. Breimer, Robert Yoder, Scott Vandenberg, Information Systems Education Journal, Vol. 10, Num. 6, pp. 38-50, 2012.
- 9/2011 Towards an Innovative Web-based Lab Delivery System for a Management Information Systems Course, Eric A. Breimer, Jami Cotler, Robert Yoder, Information Systems Education Journal, Vol. 9, Num. 4, pp. 27-36, 2011.
- 2/2010 Co-“Lab”oration: A New Paradigm for Building a Management Information Systems Course, Eric A. Breimer, Jami Cotler, Robert Yoder, Information Systems Education Journal, Vol. 8, Num. 2, 3-13, 2010.
- 6/2009 Labs First: A Computer Scientist’s Guide to Teaching Management Information Systems, Eric A. Breimer, Jami Cotler, Robert Yoder, Journal of Computing Sciences in Colleges, Vol. 24, Iss. 6, pp. 124-131, 2009.
- 12/2005 Discovering Optimization Algorithms Through Automated Learning, Eric A. Breimer, Mark K. Goldberg, David Hollinger, Darren T. Lim, DIMACS Series in Discrete Mathematics and Theoretical Computer Science Vol. 69, pp. 7-27, 2005.
- 8/2003 A Learning Algorithm for the Longest Common Subsequence Problem, Eric Breimer, Mark Goldberg, Darren Lim, ACM Journal of Experimental Algorithms, Vol. 8, Article 4 (online), 2003
- 12/2001 On the Height of a Random Set of Points in a d-dimensional Unit Cube, Eric A. Breimer, Mark K. Goldberg, Brian Kolstad, Malik Magdon-Ismael, Journal of Experimental Mathematics Vol. 10, No. 4, pp. 583-597, 2001.

Refereed/Invited Workshops

- 11/9/2013 On the Shoulders of Giants: Mobile Websites with Twitter Bootstrap, Eric Breimer, Information Systems Education Conference (ISECON 2013), San Antonio TX, <http://proc.isecon.org/2013/workshops/2689.html>
- 11/1/2012 Exposing Students to Big Data: Hands-on Market Basket Analysis with Access, Eric Breimer, Robert Yoder, Scott Vandenberg, Information Systems Education Conference (ISECON 2012), New Orleans LA, <http://proc.isecon.org/2012/workshops/2061.html>

Peer-reviewed Conferences Proceedings

- 11/2015 Using a Flipped Course for 2-year College Outreach, Eric Breimer, Michelle Conway, Proceedings of the EDSIG Conference on Information Systems and Computing Education (EDSIGCON 2015), Wilmington NC, v1, n3458, <http://proc.iscap.info/2015/pdf/3458.pdf>
- 11/2015 Full Flip, Half Flip and No Flip: Evaluation of Flipping an Introductory Programming Course, Meg Fryling, Robert Yoder, Eric Breimer, Proceedings of EDSIG Conference on Information Systems and Computing Education (EDSIGCON 2015), Wilmington NC, v1, n3430, Abstract only full paper published in ISEDJ
- 11/2012 Developing 21st Century Communicators, Jami Cotler, Robert Yoder, Eric Breimer, Deb DelBelso, Proceedings of the Information Systems Educators Conference (ISECON 2012), New Orleans LA, ISSN: 2167-1435, v29 n1950, <http://proc.isecon.org/2012/pdf/1950.pdf>
- 11/2011 Market Basket Analysis for Non-Programmers, Eric Breimer, Robert Yoder, Scott Vandenberg, Proceedings of the Information Systems Educators Conference (ISECON 2011), Wilmington NC, v28 n1657, Abstract only full paper published in ISEDJ,
- 6/2011 A Study of Video-based versus Text-based Labs for a Management Information Systems Course, Eric Breimer, Michelle Conway, Jami Cotler, Robert Yoder, Proceedings of 16th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2011), June 27-29, 2011, Darmstadt, Germany, Proceedings pp. 128-132.
- 10/2010 Towards an Innovative Web-based Lab Delivery System for a Management Information Systems Course, Eric A. Breimer, Jami Cotler, Robert Yoder, Proceedings of the Information Systems Educators Conference (ISECON 2010), Nashville TN, v27 n2346, Abstract only full paper published in ISEDJ,
- 11/2009 Co-“Lab”oration: A New Paradigm for Building a Management Information Systems Course, Eric A. Breimer, Jami Cotler, Robert Yoder, Proceedings of the Information Systems Educators Conference (ISECON 2009), Washington DC, v6 n1369, Abstract only full paper published in ISEDJ,
- 12/2003 Intrusion Detection: A Bioinformatics Approach, Scott Coull, Joel Branch, Boleslaw Szymanski, Eric Breimer, Proceedings of 19th Annual Computer Security Applications Conference, December 8-12, 2003, Las Vegas, Proceedings, pp. 24-33.
- 6/2002 A Supervised Learning Approach for Detecting Significant Local Alignments, Eric A. Breimer, Mark K. Goldberg, Proceedings of the International Conference on Research in Computational Molecular Biology, April 18-21, 2002, Washington DC, Abstract only pp. 26 - 27.
- 4/2002 Learning Significant Alignments: An Alternative to Normalized Local Alignment, Eric A. Breimer, Mark K. Goldberg, Proceedings 13th International Symposium on Methodologies for Intelligent Systems, June 27-29, 2002, Lyon, France, Lecture Notes in Computer Science, Vol. 2366, pp. 37-45.

- 1/2001 Experimental Evaluation of the Height of a Random Set of Points in a d-dimensional Cube, Eric A. Breimer, Mark K. Goldberg, Brian Kolstad, Malik Magdon-Ismael, Proceedings of the Workshop on Algorithm Engineering and Experiments, January 5-7, 2001, Washington DC, pp. 161-171.
- 1/2000 A Learning Algorithm for the Longest Common Subsequence Problem, Eric A. Breimer, Mark K. Goldberg, Darren T. Lim, Proceedings of the Workshop on Algorithm Engineering and Experiments, January 7-8, 2000, San Francisco, pp. 147-156.
- 1/2000 A Task-based Architecture for Application-aware Adjuncts, Robert Farrell, Peter Fairweather, Eric Breimer, International Conference on Intelligent User Interfaces, January 9-12, 2000, New Orleans, pp. 82-85.

Technical Report

- 12/1998 Case Study of a Learning Algorithm for the Longest Common Subsequence Problem, Eric A. Breimer, Mark K. Goldberg, Computer Science Technical Report, Rensselaer Polytechnic Institute, 1998.
- 1/1998 Exploring Collaborative Learning in Rensselaer's Classroom-in-the-Round, Robert F. Dugan, Eric A. Breimer, Darren T. Lim, Ephraim P. Glinert, Mark K. Goldberg, Computer Science Technical Report, Rensselaer Polytechnic Institute, 1998.

Ph.D. Thesis

- 9/2002 A Machine Learning Approach for Designing Dynamic Programming Algorithms, Eric A. Breimer, Ph.D. Thesis, Rensselaer Polytechnic Institute, 2002

2. Papers Presented:

- 11/4/2015 Using a Flipped Course for 2-year College Outreach, EDSIG Conference on Information Systems and Computing Education (EDSIGCON 2015), Wilmington NC
- 11/3/2015 Full Flip, Half Flip and No Flip: Evaluation of Flipping an Introductory Programming Course, EDSIG Conference on Information Systems and Computing Education (EDSIGCON 2015), Wilmington NC
- 11/2/2012 Developing 21st Century Communicators, Jami Cotler, Information Systems Educators Conference (ISECON 2012), New Orleans LA
- 11/4/2011 Market Basket Analysis for Non-Programmers, Information Systems Education Conference (ISECON 2011), Wilmington NC
- 6/27/2011 A Study of Video-based versus Text-based Labs for a Management Information Systems Course, 16th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2011), Darmstadt, Germany

- 10/28/2010 Towards an Innovative Web-based Lab Delivery System for a Management Information Systems Course, Information Systems Education Conference (ISECON 2010), Nashville TN
- 11/6/2009 Co-“Lab”oration: A New Paradigm for Building a Management Information Systems Course, Information Systems Education Conference (ISECON 2009), Washington DC
- 4/25/2009 Labs First: A Computer Scientist’s Guide to Teaching Management Information Systems, Consortium for Computing Sciences in Colleges Northeastern Conference (CCSCNE 2009), Plattsburgh NY
- 2/6/2006 Clustering the Protein Databank, Computers in Scientific Discovery III, Ghent, Belgium
- 1/06/2001 Experimental Evaluation of the Height of a Random Set of Points in a d-dimensional Cube, Workshop on Algorithm Engineering and Experiments (ALENEX 2001), Washington DC
- 1/08/2000 A Learning Algorithm for the Longest Common Subsequence Problem, Workshop on Algorithm Engineering and Experiments (ALENEX 2000), San Francisco, CA

3. Invited Lectures/Presentations:

- 5/5/2006 Clustering the Protein Databank, Computer Science Colloquium, Williams College, Williamstown, MA
- 2/6/2006 Clustering the Protein Databank, Computers in Scientific Discovery III, Ghent, Belgium
- 9/28/2004 Intrusion Detection, Association of Information Technology Professionals Annual Meeting, Albany, NY
- 11/12/2001 SEAL: System for Enhancing Algorithms through Learning, Center for Discrete Mathematics and Theoretical Computer Science (DIMACS), Rutgers University, Piscataway, NJ

4. Grants, Contracts, Consultations:

Year	Brief Description of Work	Funding (if granted)
2016	NSF IUSE Grant	Ranked competitive, not funded
	Improving Undergraduate STEM Education (IUSE) proposal (\$374,268) with Graziano Vernizzi and Jon Bannon on collaborative research with RPI to develop Multidisciplinary Data Analytics Undergraduate Education	
2015	Reassign-time award for Research	6 hours for 2015-2018 academic years
2012	Reassign-time award for Research	6 hours for 2012-2015 academic years

2010	Siena Summer Scholars Program	\$3,000
	Supervising Dan Rotondo and working in collaboration with Dean Amadio, we designed and implemented a web-based and standards-complaint implicit association test to measure internalized homophobia.	
2009	Reassign-time award for Research	6 hours for 2009-2012 academic years
2009	NSF CCLI Grant	Ranked competitive, not funded
	Course, Curriculum and Laboratory Improvement (CCLI) proposal (\$200,000) with Kevin Kittredge and Jason Hofstein to develop innovative menu-driven video podcasts to support a model inverted classroom where the goal is to improve active student learning in class.	
2009	Siena Summer Scholars Program	\$2,500
	Supervising Alan DiStasio, we designed and implemented a Facebook-style social networking system to promote and track out-of-classroom activities related to Siena's learning goals.	
2008	NSF CCLI Grant	Ranked competitive, not funded
	Course, Curriculum and Laboratory Improvement (CCLI) proposal (\$140,000) to develop video podcasts and support material to enhance outreach efforts with two-year colleges and high schools.	
2006	Reassign-time award for Research	6 hours for 2006-2009 academic years
2005	Summer Pedagogy Fellowship (COTFD)	\$2,400
	Proposal to develop innovative laboratory activities for management information systems accepted by Siena College's Committee on Teaching and Faculty Development (COTFD).	
2005	Reassign-time award for Research	6 hours for 2005/2006 academic year
2004	Reassign-time award for Research	6 hours for 2004/2005 academic year
2003	NSF Information Technology Research	Ranked competitive, not funded
	Collaborative ITR proposal (\$162,000) with Rensselaer Polytechnic Institute and Wadsworth Center to study novel machine learning approaches to challenging problems in bioinformatics.	

5. Other Related Activities:

Workshops/Conferences Attended

- 9/22/2008 Rensselaer Polytechnic Institute, Computer Science Day, Troy NY
I attended a one-day conference hosted by RPI with distinguished lectures in the areas of Data Mining and Machine learning.
- 7/30/2007 - 8/2/2007 Campus Technology 2007, Roadmap to IT Leadership, Washington DC
I participated in a four day conference focusing on cutting edge technologies for college and universities. The conference includes a site visit to the University of Maryland where we learned about their innovative use of video conferencing and multimedia technology.
- 2/17/2006 – 2/19/2006 PKAL Workshop on Technology and Learning Spaces, Memphis TN
I participated in a three day workshop focusing on innovation and planning with respect to classroom technology and learning spaces. Leading experts in the field gave presentations and invited administrators and faculty worked in teams to develop plan of action for their respective institutions.

Professional/Academic Consultation

- 5/2010-12/2010 Web Design & Application Development, ASACCU
Designed and implemented a web-based member directory system for the Association for Student Affairs at Catholic Colleges and Universities (ASACCU).
- 2007-2011 Web Design & Application Development, Professor Allan Weatherwax
Since 2007, I have been providing technical consultation for Professor Allan Weatherwax to help design, develop, and maintain websites that support several NSF-funded projects including the Firefly, Pantos, and Antarctic Space Science projects.

SERVICE

1. Service to Scholarly/Professional Organizations:

President

2017-present Information Systems & Computing Academic Professionals, Inc. (ISCAP)

Board of Directors

2015-2016 Information Systems & Computing Academic Professionals, Inc. (ISCAP)

2012-2015 Education Special Interest Group (EDSIG), Association of Information Technology Professionals (AITP)

Conference Chair

11/2016 Information Systems & Computing Education (EDSIGCON 2015), Las Vegas NV

11/2016 Information Systems Applied Research (CONISAR), Las Vegas NV

Assistant Conference Chair

11/2015 Information Systems & Computing Education (EDSIGCON 2015), Wilmington NC

Scheduling Chair & Webmaster

11/2014 Information Systems Education Conference (ISECON 2014), Baltimore MD

11/2013 Information Systems Education Conference (ISECON 2013), San Antonio TX

11/2012 Information Systems Education Conference (ISECON 2012), New Orleans LA

Poster Judge

4/24/2009 Consortium for Computing Sciences in Colleges Northeastern Conference, Plattsburgh NY

Session Chair

11/5/2015 Information Systems & Computing Education (EDSIGCON 2015), Wilmington NC

11/7/2014 Information Systems Education Conference (ISECON 2014), Baltimore MD

11/8/2013 Information Systems Education Conference (ISECON 2013), San Antonio TX

11/2/2012 Information Systems Education Conference (ISECON 2012), New Orleans LA

11/4/2011 Information Systems Education Conference (ISECON 2011), Wilmington NC

10/28/2010 Information Systems Education Conference (ISECON 2010), Nashville TN

11/6/2009 Information Systems Education Conference (ISECON 2009), Washington DC

2/5/2006 Computers in Scientific Discovery III, Ghent, Belgium

Journal/Conference Article Reviewer

2016 Reviewed 4 papers for the EDSIG Conference

2014 Reviewed 3 papers for Information System Education Journal

2013 Reviewed 3 papers for Journal of Information Systems Applied Research

2012 Reviewed 1 paper for International Conference on IT Technology Interfaces

2011 Reviewed 3 papers for Information Systems Education Journal

2010 Reviewed 3 papers for Information Systems Education Journal

2009 Reviewed 1 paper for Advances in Human-Computer Interaction.

2007 Reviewed 1 paper for Computing in Science & Engineering.

2006 Reviewed 1 paper for the ACM's Journal of Experimental Algorithms.

2005 Reviewed 2 papers for the ACM's Journal of Experimental Algorithms.

- 2004 Reviewed 1 paper for the ACM's Journal of Experimental Algorithms.
- 2003 Reviewed 2 papers for the ACM's Journal of Experimental Algorithms.

2. Siena Community Service:

a. College-wide Service Activities:

9/2015-9/2016 School of Science Representative, Siena College Strategic Planning Committee

9/2011-5/2016 School of Science Representative, Siena College Planning & Finance Committee

Reviewed progress on Siena's 5-year strategic plan including drafting semi-annual summary reports to the School of Science. Reviewed progress on Middle State re-accreditation process and Siena's ongoing Capital Campaign. Solicited faculty for feedback on ARC renovation project, aggregated faculty concerns, requested additional justification from proposers, and continue to demand administrative due diligence on this significant project.

9/17/2014 Presenter, Gateway to Science Careers

Gave presentation about careers and research opportunities in Computer Science.

2/2014-6/2014 Creative Arts Department Visiting Faculty Search Committee

11/2013-1/2014 ITS, Instructional Technologist Search Committee

10/2009-3/2010 Creative Arts Department Faculty Search Committee

5/2009-4/2010 Community College Liaison, Tech Valley Scholars, NSF S-STEM Grant

Developed and deployed a promotional video podcast to over 800 students. Gave two talks to Calculus I students at Hudson Valley Community College. Individually reached out to six transfer students welcoming them to Siena. In Collaboration with Robin Flatland, helped develop and renew our articulation agreement with Hudson Valley Community College. Met with the President and Dean of Science at Schenectady County Community College.

7/2009-2/2010 Co-Chair, Siena Web Redesign Team

In collaboration with Michael Fogarty, provided leadership for the 2010 redesign of www.siena.edu. Working with SunGard Higher Education, we helped design the overall appearance, organization, and application architecture of Siena's new website and content management systems. Participation included 2-3 weekly meetings with various on-campus groups, Siena's Web Operations team, and Siena's Web Advisory Committee. Setup collaboration Wiki and several Google Applications to solicit and gather feedback and comparison data.

4/16/2010 Volunteer, School of Business Annual Student Conference 2010

Provided technical support for MIS track session

4/17/2009 Judge, School of Business Annual Student Conference 2009

Session judge to help determine best presentation award.

2/2009-4/2009 Digital Science Center Building Committee

Working with Karen Quaal and Don DelManzo, the committee developed a comprehensive plan and vision for a new building for ITS, Math, Computer Science, Physics, and Digital Media/Electronic Journalism. Scott Vandenberg and I researched our current space and designed the initial layout and configuration of Computer Science department's floor. We worked with the architect to create scale floor plans.

1/2009- 9/2009 Board of Instruction (BOI)

At large representative and sub-committee chair for reviewing proposed changes to Siena's 39-credit hour limit on courses in the major.

9/2008-2/2009 Philosophy Department Faculty Search Committee

5/2008-8/2008 iTunes U Project

In collaboration with Eric Crossman, Ken Swarner, Doug Hatch, Phyllis Conroy, and Chuck Rothman, I helped develop and implement Siena's iTunes U system. Specifically, I implemented a login and authentication system that integrates Siena's Active Directory with iTunes' credentialing system, and helped organize the iTunes U pages.

1/2008-5/2008 CRES Website & Content Management System

In collaboration with Karen Mahar and students from my Multimedia Team Project course, I implemented a website and content management system for the Center for Revolutionary Era Studies which is a unique partnership between Siena College and the Saratoga National Battlefield Museum.

9/2007-12/2010 School of Science Webmaster

I designed, implemented, and maintain a website and content management system for the School of Science. The departments of Chemistry & Biochemistry and Physics use the website and system to maintain various academic-based and research-based web pages. (See <http://www.sos.siena.edu>).

5/2006-9/2006 School of Science Lobby Redesign Committee

9/2005-5/2008 Advisory Committee on Technology Services (ACTS)

Attended a nationally recognized workshop on technology and space planning with Linda Richardson, Gary Thompson, Tim Lederman, and Bob Drake to develop a plan of action for Siena; co-presented Siena's plan to the campus community and developed a website to promote Siena's learning spaces and technology initiatives; participated in a site visit to Hamilton College to compare technology infrastructure; in collaboration with Gary Thompson and Sean Conley,

developed a proposal for a multimedia development center. co-authored Siena's hardware replacement plan; reviewed Siena's EEC standardization and replacement plan; helped develop ACTS goals and priorities as part of the college's 5-year strategic plan; communicate technology related issues and opportunities in the School of Science.

8/2005-5/2006 College Web Technology Working Group

Reviewed consultant recommendations for the college's website; helped developed requirements and specifications for the purchase of a web content management system; reviewed 15 vendor proposals; met with three final vendors and helped select final proposal.

6/2005-9/2005 Academic Affairs Web Design Project

Supervised an independent study with Kelly Morgan to comprehensively redesign and re-organize Siena College's Academic Affairs Website.

9/2004-1/2005 Information Technology Steering Committee

Solicited faculty input from the School of Science and provided feedback in the development of the college's 5-year strategic plan for information technology.

9/2004-1/2005 Creative Arts Department Faculty Search Committee

1/2004-12/2004 Blackboard™ Trainer

Attended expert training seminar (1/5/2004-1/6/2004). Prepared and delivered faculty training seminars on 8/26/2004 and 9/7/2004.

4/2003-9/2005 Board of Instruction (BOI)

Sub-committee chairmen for Creative Arts department major change (2004-2005), Sub-committee for School of Business core circular changes for AACSB accreditation (2003-2004). Proposals reviewed: Simulation & Modeling, Computer Graphics, Computational Science Program, Honors Thesis I & II, Honors Research Colloquium, and Strategic Management Capstone Course.

b. Admission and Recruitment Service Activities:

Dates	Events/Activity
7/6/2015	Attended Summer Day Lunch
3/19/2015	Participant, Presidential Scholars Lunch
2/11/2015	Presenter, Accepted Student Day
1/26/2015	Participant, Presidential Scholars Lunch
12/5/2014	Participant ,Accepted Student Day
2/3/2014	Participant, Presidential Scholars Class Visit
1/27/2014	Participant, Presidential Scholars Class Visit
11/22/2013	Participant, McGuire & Associates Meeting
11/3/2013	Presenter, Open House
4/25/2012	Attended Shadow Day Lunch

4/23/2012 Attended Shadow Day Lunch
 4/18/2012 Attended Shadow Day Lunch
 4/19/2010 Attended Shadow Day Lunch
 4/12/2010 Attended Shadow Day Lunch
 9/10/2009 Presenter, Admission Staff Orientation
 7/13/2009 Attended Summer Day Reception
 7/20/2009 Attended Summer Day Reception
 7/25/2008 Speaker, Guidance Counselor Session
 4/17/2008 Speaker, Accepted Student Reception, New York NY
 11/2/2007 Attended Fall Friday
 10/19/2007 Attended Fall Friday
 7/27/2007 Speaker, Guidance Counselor Session
 11/10/2006 Attended Fall Friday
 9/7/2006 Participant, Admission Staff Orientation
 8/1/2006 Speaker, Guidance Counselor Session
 7/25/2006 Speaker, Guidance Counselor Session
 4/25/2006 Speaker, Accepted Student Reception, Syracuse NY
 12/1/2005 Attended Guidance Counselor Reception
 10/8/2005 Presenter, Siena Family Week
 9/25/2005 Presenter, Open House
 9/9/2005 Participant, Admission Staff Orientation
 8/1/2005 Attended Guidance Counselor Dinner
 7/28/2005 Attended Guidance Counselor Dinner
 4/25/2005 Speaker, Accepted Student Reception, Capital Region
 4/4/2005 Attended Franciscan Scholars Dinner
 3/10/2005 Presenter, HVCC Career Day
 3/7/2005 Speaker, Presidential Scholars Program
 2/21/2005 Speaker, Presidential Scholars Program
 2/14/2005 Speaker, Presidential Scholars Program
 1/12/2005 Speaker, Guidance Counselor Session
 11/18/2004 Speaker, Guidance Counselor Luncheon, Rye NY
 9/26/2004 Presenter, Open House
 9/14/2004 Speaker, Admission Staff Orientation
 8/2/2004 Speaker, Guidance Counselor Session
 7/28/2004 Speaker, Guidance Counselor Session
 7/20/2004 Attended Summer Day Reception
 7/9/2004 Attended Summer Day Reception
 4/20/2004 Speaker, Accepted Student Reception, Hartford CT
 3/29/2004 Attended Franciscan Scholars Dinner
 2/23/2004 Speaker, Presidential Scholars Program
 2/16/2004 Speaker, Presidential Scholars Program
 2/9/2004 Speaker, Presidential Scholars Program
 9/21/2003 Presenter, Open House
 2/24/2003 Speaker, Presidential Scholars Program
 2/17/2003 Speaker, Presidential Scholars Program
 2/16/2003 Attended Presidential Scholars Reception
 2/10/2003 Speaker, Presidential Scholars Program
 2/9/2003 Attended Presidential Scholars Reception

1/23/2003 Presenter, HVCC Career Day
 1/9/2003 Presenter, Open House
 11/10/2002 Presenter, Open House
 11/1/2002 Attended Fall Friday
 10/11/2002 Attended Fall Friday
 10/04/2002 Attended Fall Friday
 9/22/2002 Presenter, Open House

c. Department Service:

Faculty In-class Evaluation

4/13/2016 Ira Goldstein, Intro to Computer Science
 4/13/2016 Jack Armitage, Management Information Systems
 10/29/2014 Jeff Yates, Computer Applications lecture
 12/14/2013 Ira Goldstein, Computer Applications lecture
 4/10/2013 Laura Schindler, Management Information Systems
 4/18/2012 Dan DiTursi, Theory of Computation

SPARCS Summer CSIS Experience 8/30/2016 Developed/Delivered 3 hour workshop on making a mobile website
 9/3/2015 Developed/Delivered 3 hour workshop on making a mobile website

5/2012-9/2013 Chair, Department 5-year Self Study
 Coordinated CS Department's 5-year self evaluation including an external review and analysis of enrollment trends.

9/2010-3/2011 Chair, Faculty Search Committee, Computer Science Department
 Lead the search committee consisting of Tim Lederman, Jim Matthews, Robin Flatland, Cheryl Buff, and Jody O'Donnell in hiring two tenure-track faculty members. Responsibilities included developing and posting the position announcement, coordinating application reviews and phone interviews, and organizing five onsite interviews over a 7-day period.

10/2007-3/2008 Faculty Search Committee Computer Science Department
 Reviewed over 50 applications, contacted applicants, and coordinated visit/interviews. The CS Dept. successfully hired Scott Diehl.

9/2005-5/2006 Studio Classroom Design
 Assisted with the redesign of RB304 into a studio classroom (dual classroom and computer lab), developed scale floor plan and layout diagrams, assisted in the research and selection of flat panel monitors and computer desks.

2/2006-4/2006 Direct Mailing Initiative
 Developed a welcome letter for prospective students and organized a direct letter mailing to all accepted Presidential and Franciscan Scholars who indicated an interest in Computer Science.

1/2004-present Computer Science Student Recruitment

<u>Dates</u>	<u>Activities</u>
4/4/2014	Volunteer, High School Programming Contest
4/27/2013	Volunteer, High School Programming Contest
4/20/2012	Volunteer, High School Programming Contest
4/8/2011	Volunteer, High School Programming Contest
4/30/2010	Volunteer, High School Programming Contest
4/3/2009	Volunteer, High School Programming Contest
4/25/2008	Volunteer, High School Programming Contest
1/13/2007	Volunteer, Project Impact, High School Outreach Program
4/27/2007	Volunteer, High School Programming Contest
10/13/2006	Volunteer, Project Impact, High School Outreach Program
3/24/2006	Volunteer, High School Programming Contest
3/24/2005	Volunteer, High School Programming Contest
3/27/2004	Volunteer, High School Programming Contest

11/2003-3/2004 Faculty Search Committee, Computer Science Department

Reviewed over 60 applications, contacted applicants, and coordinated visit/interviews. The CS Dept. successfully hired Darren Lim.

9/2003-9/2005 Faculty Advisor, Computer Science Club

Renewed the club's ACM charter, helped organize, moderate, and publicize club activities, seminars, and study events; helped recruit student volunteers for the CS departments high school programming contest.

9/2003-9/2004 Coordinator, Computer Science Seminar

Invited and scheduled speakers, coordinated refreshments and publicity.

<u>Date</u>	<u>Seminars Coordinated</u>
4/22/2004	Cyber Crime and the FBI," Martin McBride, FBI Special Agent
3/10/2004	"Secondary Structure Prediction in Proteins," Darren Lim, Rensselaer Polytechnic Institute
2/23/2004	"Generating Synthetic Workloads," Zackary Kurmas, Georgia Institute of Technology
10/28/2003	"Change Point Problem in Bioinformatics," James Kilbride, Wadsworth Labs & RPI

1/2003-5/2006 Computer Science Department Assessment

Implemented online alumni survey in conjunction with the CS Department's 5-year plan. Developed and administered algorithm analysis assessment questions in conjunction with CS department's ongoing internal assessment.

9/2002-present Computer Science Department Webmaster

Since arriving at Siena in 2002, I have provided the computer science department with continuous support and maintenance of their outstanding website. This support includes comprehensive redesigns to meet both the college's guidelines and commercial best-practices. Over the years, redesigns have included original layouts and graphics, and comprehensive content development including facilities descriptions, faculty profiles, alumni and student profiles, comprehensive academic information, and online resources. Recently, I have supervised several students in the development of a content management system for keeping the website content updated and accurate. (See <http://www.cs.siena.edu>).

3. Other Community Service:

1/2001-present Information Technology Support Rensselaer Newman Foundation

I volunteer 6-10 hours a month and provide technology support and training for the foundation's staff and leadership. I assist with fund raising, database operations, and PC/network support. The Rensselaer Newman Foundation provides financial support for the Chapel + Cultural Center and the Parish of Christ Sun of Justice, which support cultural events and provide charitable contributions for various groups in the Troy NY area.

9/2006-5/2007 Board of Managers Capital District YMCA

4. Awards/Honors/Other Special Recognition:

2002 Robert McNaughton Prize, Computer Science Department, Rensselaer Polytechnic Institute

2000 Founders Award for Academic Excellence, Rensselaer Polytechnic Institute

1995 Deans Scholar, Thomas J. Watson School of Engineering and Applied Science, Binghamton University

1995 Mathematics and Computer Science Award, Dutchess United Educators

1993 Presidential Scholar, Dutchess Community College