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**Department of Computer Science and Information Systems  
Coastal Carolina University  
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**Education**

**M.S. Computer Science**, June 1987

The University Of South Carolina; Columbia, South Carolina  
Thesis: "The Development of a MC68000 Cross-Assembler"

**Ph.D. Mathematics Education**, June 1981

The University of Oklahoma; Norman, Oklahoma  
Dissertation: "The Effect of Cognitive Style on the Acquisition of Mathematical Concepts Presented through Emphasis on Positive and Negative Instances"

**M.A. Mathematics**, August 1970

Andrews University; Berrien Springs, Michigan  
Masters Project: "Analysis of the Bergman Kernel Function"

**B.A. Mathematics**, June 1969

Columbia Union College; Takoma Park, Maryland

**Employment**

**COASTAL CAROLINA UNIVERSITY**

June 1989 to *Present*

**Department of Computer Science & Information Systems**

Conway, SC, 29528-6054

**Distinguished Professor Emeritus** (6/2012 – *present*)

**Professor of Computer Science** (1/2011 to 6/2012)

**Department Chair, Professor of Computer Science** (6/2008 – 12/2010)

**Professor of Computer Science** (1/2003 – 5/2008)

**Department Chair, Professor of Computer Science** (3/1998 – 12/2002)

**Department Chair, Associate Professor of Computer Science** (7/1993 – 3/1998)

**Associate Professor of Computer Science** (6/1989 – 6/1993)

**Responsibilities:** Course scheduling, curriculum design, coordination of student advisement, textbook ordering and teacher evaluation, ABET Coordinator, etc

**Courses taught include:** Computer Applications, Introduction to Computer Enterprise Applications, BASIC, Algorithms Design I, Algorithms Design II, Business Calculus, Computer Organization and Programming, Computer Architecture, Information Structures, Data Structures, Numerical Calculus, Data Communications and Networks, Organization of Programming Languages, Assembly Language Programming, Compiler Design, Independent Study, Honors Program, Statistical Inference, College Algebra, Calculus, Discrete Mathematics, and Bioinformatics.

**SOUTHWESTERN ADVENTIST UNIVERSITY**  
Keene, TX

August 1987 to June 1989

**Chairperson, Computer Science & Information Systems Department,  
Co-op Education Director,  
Associate Professor of Computer Science & Information Systems**

*Responsibilities:* Course scheduling, curriculum design, coordination of student advisement, textbook ordering and teacher evaluation, etc.

*Courses taught include:* Algorithm Design I, Algorithm Design II, Discrete Mathematics, Data Structures, Operating Systems, Database Design, and Compiler Design.

**VALDOSTA STATE UNIVERSITY**  
Valdosta, GA

August 1983 to August 1987

**Assistant Professor of Computer Science & Mathematics  
Co-op Education Advisor for Computer Science  
Academic Computer Coordinator for Computer Science**

*Courses taught include:* BASIC, Algorithm Design I, Algorithm Design II, Discrete Mathematics, Data Structures, Compiler Design, College Algebra, Statistics & Probability, Calculus I, Calculus II, and Business Calculus.

**WAYCROSS COLLEGE**  
Waycross, GA

August 1977 to August 1983

**Assistant Professor of Mathematics  
Academic Computer Coordinator**

*Courses taught include:* BASIC Programming, Data Processing, Developmental Mathematics, Intermediate Algebra, College Algebra, Calculus I, and Calculus II.

## **Presentations**

Edge, Crystal & Sheel, Steve. (2009). Digital Forensics Action Labs for Computer Science. ACM Special Interest Group for Computer Science Education, Chattanooga, TN, March 3-6, 2009.

Luncheon Keynote Address, Action Labs: Motivation and Retention: Scholarship on Teaching and Learning Conference (SoTL) 2008, Myrtle Beach, SC, March, 2008.

Computing and the Mysteries of Life: Bioinformatics”, Pre-Conference Workshop, 21st Annual The Consortium for Computing Sciences in Colleges (CCSC :Southeastern ) Conference, Dr Steve Sheel and Mr. Ryan Rossi, November 2007.

Opening Remarks, 1<sup>st</sup> Annual International Security Conference, Myrtle Beach, April , 2007.

"Latent Semantic Analysis in Security" - 1<sup>st</sup> Annual International Security Conference, Myrtle Beach, April , 2007.

“Introduction to Bioinformatics”, Guest Lecturer Series, Southern Adventist University, Collegedale, TN, March 2007.

Chiang Mai University: together with Professor Lassez, presented an Action Lab Workshop on Bioinformatics and Security to graduate students and faculty from various universities in Thailand, November 2006, Chiang Mai, Thailand.

“Women in Science: Just One of the Guys”, Panel Moderator, Celebration of Inquiry, Coastal Carolina University, Feb 2006.

“Developing a Pyramid Structure for Managing Web-Centric Documents”, 23rd International Conference on Design in Communication, SIGDOC 2005, Coventry, England, Sept 2005.

“Developing a Pyramid Structures for Managing PowerPoint Online Lectures”, Society for Applied Learning (Salt) Conference, Orlando, FL, Feb 2005.

“A Layered Pyramid Model for Electronic Information Management”, Merlot (Multimedia Educational Resource for Learning and Online Teaching), Conference, Costa Mesa, CA, August 2004.

“Pyramid Building: The Launching of the Journal of Electronic Lectures”, ASCUE (Association of Small Computer Users in Education) 2004 Annual Conference, Myrtle Beach, SC, June, 2004.

“Pyramid Building: A Model for the Future of Academic Publishing”, 2004 Celebration of Inquiry Conference, Coastal Carolina University, February, 2004.

“Accreditation: What it Means to our Community”, panel discussant, 2004 Celebration of Inquiry Conference, Coastal Carolina University, February, 2004.

“Why not Major in Computer Science?”, Freshmen Success Seminar, Coastal Carolina University, March, 2003.

“Bioinformatics Fundamentals”, guest speaker, Bioinformatics 101, fall, 2002.

“A Look to Past to Look to the Future”, Commencement Speaker, Myrtle Beach Adventist Christian School, May, 2001.

“A Comparison of Neural Networks and Classical Discriminant Analysis in Predicting Students' Mathematics Placement Examination Scores”, Lecture Notes in Computer Science 2074, Springer-Verlag, Computational Science - ICCS 2001, International Conference, San Francisco, CA, May, 2001.

“Beauty & the Beast: Women in Computer Science”, Panel Moderator, Celebration of Inquiry, “Truth, Beauty and Imagination in the Academy”, Coastal Carolina University, Conway, SC, February 2000.

“The Future of Computers”, guest speaker: Computer Science 480, Robotics, Coastal Carolina University, February 2000.

“On-the-Job Training and College Credit, Too: Making the Most of an Internship”, Panel Discussant, Celebration of Inquiry, “Conflict and Creativity in the Search for Knowledge”, Coastal Carolina University, Conway, SC, February 1999.

“The Effect of Field-Independent/Field-Dependent Cognitive Style on the Acquisition of Computer Applications Presented in a Self-Paced and Traditional Lecture-Based Course”, 34<sup>th</sup> Annual Meeting of Southeastern Chapter of the Institute for Operations Research and the Management Sciences, Myrtle Beach, SC, October 1998.

“Wireless Data Communications: Adventures In The Untamed Frontier”, guest speaker: Computer Science 370, Data Communications and Networks, Coastal Carolina University, February 1998.

“Changes in the Computer Science Curriculum”, Science and Mathematics Curricular Retreat, College of Natural & Applied Sciences, Coastal Carolina University, September 1997.

“Evaluating the Effectiveness of a Formal Ethics Component in the Computer Science Curriculum”, 30<sup>th</sup> Annual Association of Small Computer Users in Education(ASCUE), Myrtle Beach, SC, June 1997.

“Evaluating the Effectiveness of a Formal Ethics Component in the Computer Science Curriculum”, Fall the Mid-Southeast ACM Chapter, Gatlinburg, TN, Fall 1996.

“Wireless data communication and mobile satellite communication: Components of the ‘virtual classroom’”, 1995 Higher Education Network Association (HENA), October, 1995.

“System Development Life Cycle: A Contrast in the Analysis and Design of a Computer Information System and its Replacement for the Horry County Public Defender’s Office”, The Institute of Management Sciences, Myrtle Beach, SC, Fall 1995.

“Wireless data communication prototyping: A flexible, high-quality, and cost-effective information system for education, 1995 Summer Conference Annual Association of Small Computers Users in Education”, Myrtle Beach, SC, Summer, 1995.

“The Design, Analysis, and Implementation of System Interfaces that Integrate the Magellan AIV-10 Global Positioning System Module and the Motorola RPM 405i Radio Packet Modem”, 1995 Annual Meeting of the South Carolina Academy of Science, Greenville, SC, Spring 1995.

“Contrast of Ethical Behavior Exhibited by Computer Science and Management Information Science Students toward Software Piracy”, Fall Conference of the Mid-Southeast ACM Chapter, Gatlinburg, TN, Fall 1994.

“A Survey of Ethical Behavior in Students Enrolled in Computer Science and Information Systems Courses”, The Institute of Management Sciences, Myrtle Beach, Fall 1994.

“State of the Curriculum in Computer Science Education”, Fall Conference of the Mid-Southeast ACM Chapter, Gatlinburg, TN, Fall 1992.

“A Critical View of a New Computer Science Introductory Course”, 30th ACM Southeastern Conference, Raleigh, NC, Spring 1992.

“A Survey of Precursor Requirements for CS[1] and A Critical Look at a Proposed First Course for Computer Science Majors”, Fall Conference of the Mid-Southeast ACM Chapter, Gatlinburg, TN, Fall 1991.

“An Introduction to Neural Network Theory”, Mathematics & Computer Science Club, Coastal Carolina University, Spring 1990.

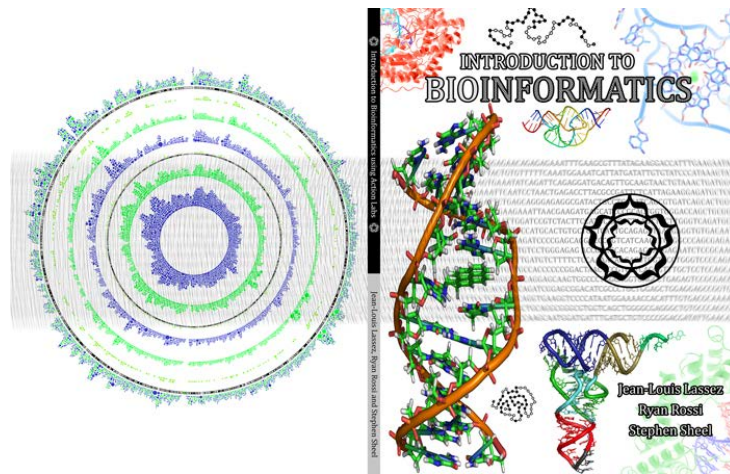
“Cognition and Neural Nets”, Armed Forces Communications & Electronics Association, Myrtle Beach Air Force Base, Myrtle Beach, SC, Fall 1990.

“Compiler Design and Error Repair”, Computer Science Department, Coastal Carolina University, Conway, SC, Spring 1989.

“Artificial Intelligence and Neural Networks”, Faculty Colloquium, Southwestern Adventist University, Keene, TX, Spring 1989.

“An Introduction To Compiler Design Theory”, Faculty Colloquium, Southwestern Adventist University, Keene, TX, Spring 1987.

## Books



**Bioinformatics** is the application of computational techniques and tools to analyze and manage biological data. This **book** provides an **Introduction to Bioinformatics** through the use of Action Labs. These labs allow students to get experience using real data and tools to solve difficult problems. The book comes with supplementary powerpoints, papers, and tools. The labs use data from Breast Cancer, Liver Disease, Diabetes, SARS, HIV, Extinct Organisms, and many others. The book has been written for first or second year computer science, mathematics, and biology students.

## Papers & Publications

\*-refereed

\*John Stamey and Stephen Sheel, "A boot camp approach to learning programming in a CS0 course", *Journal of Computing Sciences in Colleges*, Volume 25, Issue 5 (May 2010), pages:34-40.

\*Jean-Louis Lassez, Ryan Rossi, Stephen Sheel, Department of Computer Science Coastal Carolina University, Srinivas Mukkamala, Department of Computer Science, New Mexico Tech , "Signature Based Intrusion Detection using Latent Semantic Analysis", *Proceedings of the IEEE International Joint Conference of Neural Networks, IJCNN*, 1068-1074, 2008.

\*Karadeniz, Tayfun, Lassez, Jean-Louis, and Sheel, Stephen, "Developing a Pyramid Structure for Managing Web-Centric Documents", *Proceedings of the 23<sup>rd</sup> Annual International Conference on Design of Communications: Documenting & Designing for Pervasive Information*, ACM Press, New York, NY, September 2005.

\*Sheel, S.J., Vrooman, D., Renner, R.S.,and Dawsey, S.K., "A Comparison of Neural Networks and Classical Discriminant Analysis in Predicting Students' Mathematics Placement Examination Scores", *Lecture Notes in Computer Science 2074, Springer-Verlag, Computational Science - ICCS 2001, International Conference*, San Francisco, CA, May, 2001.

\*Sheel, S.J., Renner, R.S., and Dawsey, S. K., " Alternatives to Math Placement Exams: A Look at Discriminant Analysis, Neural Networks, and Ensembles of Networks", *Proceedings of the International Conference on Artificial Intelligence (IC-AI'2000)*, Las Vegas, NV, June 2000.

\*Collins, E. Eugene and Sheel, S. J., "The Effect of Field-Independent/Field-Dependent Cognitive Style on the Acquisition of Computer Applications Presented in a Self-Paced and Traditional Lecture-Based Course", *Proceedings of the 34<sup>th</sup> Annual Meeting, Southeastern Chapter, The Institute for Operations Research and the Management Sciences*, Myrtle Beach, October 1998.

\*Sheel, S. J. and E. Eugene Collins, "Evaluating the Effectiveness of a Formal Ethics Component in the Computer Science Curriculum", *Proceedings of the 1997 ASCUE Summer Conference*, 30th Annual Association of Small Computer Users in Education

(ASCUE) Conference, Myrtle Beach, SC, June 1997.

\*Juliano, B.A. and Sheel, S. J., "A look at the evolving classroom: Wireless data communication and mobile satellite communications.", Proceedings of ICCE-95, International Conference on Computers in Education, Raffles City, Singapore, December, 1995.

\*Collins, E. Eugene and Sheel, S. J., "System Development Life Cycle: A Contrast in the Analysis and Design of a Computer Information System and its Replacement for the Horry County Public Defender's Office", Proceedings of the 31st Annual Meeting, Southeastern Chapter, The Institute of Management Sciences, October 1995.

\*Juliano, B. A. and Sheel, S. J., "Wireless data communication prototyping: A flexible, high-quality, and cost effective information system for education.", Proceedings of the 1995 ASCUE Summer Conference, 28th Annual Association of Small Computer Users in Education (ASCUE) Conference, Myrtle Beach, SC, June 1995.

\*Juliano, B. A. and Sheel, S. J., "Managing School Buses on the Information Superhighway", Coastal Business Review 1995. Coastal Carolina University, Conway, SC, 1995.

\*Collins, E. E. and Sheel, S. J., "A Survey of Ethical Behavior in Students Enrolled in Computer Science and Information Systems Courses", Proceedings of the 30th Annual Meeting, Southeastern Chapter, The Institute of Management Sciences, October 1994.

\*Burney, R., Rauch, D. and Sheel, S., "Uniform Perceptions of Retail Stimuli: An Empirical Analysis of Differences in Retail Customer Ratings", Proceedings of the 30th Annual Meeting, Southeastern Chapter, The Institute of Management Sciences, October 1994.

Burney, R., Rauch, D. and Sheel, S., "Barefoot Landing Customer Survey 1993, Part One", June, 1993, *Center for Economic Development*.

Sheel, Stephen J. and Holmes, Patsy L., "Evaluation of Proposed Hardware Solutions for Jordan Properties", August, 1993.

\*Linder, J. and Sheel, S. J.(1992), "A Critical View of New Computer Science Introductory Course", Proceedings of the 30th Annual Association for Computing Machinery Southeast Conference, Pancake, C.M. and Reeves, D. S., Editors, Raleigh, NC, 385-388.

\*Sheel, S.J. and Samaras, J.M., SYSTEM68, An MC68000 Cross Assembler and Simulator, Ver. 2.0, Distributed by Public Brand Software, Indianapolis, In, 1991.

## Grants & Grants Proposals

Travel Grant, Coastal Carolina University – Southwestern Adventist University, Dinosaur Excavation Project (2011), - \$1,500, Spring 2011.

STOL Coastal Carolina University – Action Lab Grant \$7,500, Fall 2007.

STOL, Coastal Carolina University – Action Lab Grant \$7,500, Summer 2006,

Course Technologies Lab Grant \$5,000 (approximate cash value), Fall 2006.

Gateway Laptop Convertible Initiative Grant \$2,000 (approximate cash value), Spring 2006.

Travel Grants, Coastal Carolina University, 2005-2007.

Travel Grant, Faculty-Welfare and Development, \$500, Salt Conference, Feb, 2004.

*Grant Funding Proposal:* National Science Foundation (NSF), “Advanced Bioinformatics Algorithms in an Undergraduate Curriculum”, Co-Pi, \$611,610, November, 2002.

Teaching with Technology Micro-grant for 2001-2002, \$1750, Coastal Carolina University, Fall 2001.

Travel Grant, Faculty Welfare and Development Committee, Present Paper, International Conference on Computational Science, San Francisco, CA, May, 2001.

Performance Improvement Funding Grant, \$167,000, South Carolina Commission on Higher Education, 1999.

Teaching with Technology Micro-grant for 1999-2000, \$1750, Coastal Carolina University, Fall 1999.

Travel Grant, Faculty Welfare and Development Committee, Present Paper, Myrtle Beach, SC, Summer 1997.

Travel Grant, Faculty Welfare and Development Committee, Present Paper, Myrtle Beach, SC, Summer 1995.

Travel Grant, Faculty Welfare and Development Committee, Present Paper, Gatlinburg Tn, Fall 1992.

Travel Grant, Faculty Welfare and Development Committee, Present Paper, Raleigh, NC, Spring 1991.

Travel Grant, Faculty Welfare and Development Committee, Present Paper, Gatlinburg Tn, Fall 1991.

Research Grant, Faculty Welfare and Development Committee, Conduct Survey, Coastal Carolina College, 1989.

Hardware Grant, Prime Computers Inc., Main Frame Computer, Valdosta State University, 1985, Amount: \$90,000.00 (Estimated value of hardware & software).

Title III Grant, Department of Education, Mathematics Learning Laboratory, Waycross College, Fall 1982, Amount: \$50,000.00

**Professional Memberships**

Association of Computing Machinery (ACM)

Special Interest Group in Computer Science Education (SIGCSE)

Special Interest Group in Design of Communication (SIGDOC)

The South Carolina Academy of Science

Upsilon Pi Epsilon Computer Science Honor Society (Coastal Carolina University)

Sigma Zeta Science & Mathematics Honor Society (Coastal Carolina University)

Pi Mu Epsilon Mathematics Honor Society (University of Oklahoma)

**References**

Prof. Emeritus, Gene Collins, Prof. of Mathematics & Computer Science, Coastal Carolina University, (843) 340-4904

Dr. Jean-Louis Lassez, Retired Chair & Prof. of Computer Science, Coastal Carolina University, (575) 854-2253

Dr. William Jones, Chair & Assistant Professor of Computer Science, Department of Computer Science & Information Systems, (843) 349-4142