# R. Stephen Dannelly, Ph.D.

Department Chair and Associate Professor of Computer Science
Department of Computer Science and Quantitative Methods
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Rock Hill, South Carolina 29733

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## Education

Ph.D. Auburn University
Computer Science and Engineering
December 1995

M.S. Auburn University
Computer Science and Engineering
March 1990

B.S. Birmingham-Southern College
Computer Science
May 1987

## Related Experience

2004 - present Chair and Associate Professor
Department of Computer Science and Quantitative Methods
Winthrop University

2001 – 2004 Associate Professor

1995 – 2001 Assistant Professor
Department of Computing and Mathematical Sciences
Texas A&M University – Corpus Christi

1994 – 1995 Instructor (non-tenure track faculty)
Department of Computer Science and Engineering
Auburn University

## Courses Taught at Winthrop University

- CSCI 101 Introduction to Computers and Information Processing
- CSCI 271 Data Structures
- CSCI 293 Programming in C#
- CSCI 327 Social Implications of Computing
- CSCI 392 Programming in Java
- CSCI 440 Introduction to Computer Graphics
- CSCI 621 Software Project Management
- CSCI 626 Software Quality Assurance

## Publications and Presentations

R. Stephen Dannelly and Lynn A. DeNoia
"Student Opinions of Software Project Success"
*Proceedings of the 45th ACM Southeast Conference*, pp. 327-330, March 2007.

Kent Foster, Lynn DeNoia, and Stephen Dannelly
"Reengineering a Computer Literacy Course",
*The Journal of Computing Sciences in Colleges*, (Proceedings of the 12th Annual Southeastern CCSC) Volume 22, Number 2, pp. 197-202, December 2006.

Carl Steidley, Ray Bachnak, R. Stephen Dannelly, Rahul Kulkarni, and Chad Mayfield
"A Multi-Spectral Imaging System fro Geo-Spatial Applications"
*Journal of Computational Methods in Sciences and Engineering*, Vol. 5 No. 1, 2005

R. Stephen Dannelly, Carl W. Steidley, Mario A. Garcia, and Sreevani Pelala,
"Robots and Search Algorithms: Real-World Application for Students",
*Computers in Education Journal*, April 2004.

R. Bachnak, R. Kulkarni, S. Dannelly, and C. Steidley,
"Software Development for an Airborne Imaging System",
*Proceedings of Electronic Imaging 2004*, Vol. 5301A, pp. 285-293, San Jose, CA, January 18-22, 2004.

Carl Steidley, Ray Bachnak, Steve Dannelly, Patrick Michaud, and Alex Sadovski,
"Image and Data Logging Systems for Environmental Studies and Research"
*Proceedings of the 12th International Conference on Intelligent and Adaptive Systems and Software Engineering (IASSE 2003)*, pp. 31-36, San Francisco, CA, July 9-11, 2003.

R. Stephen Dannelly, Carl W. Steidley, Mario A. Garcia, and Sreevani Pelala,
"Robots and Search Algorithms: Real-World Application for Students",
*2003 ASEE Annual Conference and Exposition Proceedings*, CD-ROM session 1320,
Nashville, Tennessee, June 2003

R. Stephen Dannelly, Carl W. Steidley, Mario A. Garcia, and Sreevani Pelala,
"Physical World Applications of Search Algorithms for Students",
*The Journal of Computing Sciences in Colleges*, pp. 95-103, Vol. 18, No.4, April 2003.

Carl Steidley, Patrick Michaud, R. Stephen Dannelly, and Holly Patterson-McNeill,
"Fostering Interdisciplinary and Discovery Learning",
*Proceedings of the American Society for Engineering Education Gulf-Southwest 2003 Conference*,
Session 3A, CD-ROM, Arlington, TX, March 2003.

Carl Steidley, R. Stephen Dannelly, Mario A. Garcia, and Sreevani Pelala,
"Robots and Search Methods: Abstraction Through Implementation",
*Proceedings of the American Society for Engineering Education Gulf-Southwest 2003 Conference*,
Session 3B, CD-ROM, Arlington, TX, March 2003.

Ray Bachnak, R. Stephen Dannelly, Rahul Kulkarni, Stacey Lyle, Carl Steidley
"Developing an Airborne Multi-Sectral Imaging System for GIS-based Environmental Studies"
*Proceedings of the ISCA 15th International Conference on Computer Applications in Industry and Engineering*, pp. 101-106, San Diego, CA, November 2002.

R. Stephen Dannelly, Patrick Michaud, Holly Patterson-McNeill, and Carl W. Steidley
"A Multidisciplinary Student-Centered Laboratory"
*Proceedings of the 32nd American Society for Engineering Education/Institute for Electrical and Electronic Engineers Frontiers in Education (FIE) Conference*, Boston, MA, November 2002.

R. Stephen Dannelly and Carl Steidley
"A Laboratory for Incorporating Computer Science Theory with Real-World Interests and Difficulties"
poster presentation by Dannelly at ASEE / SEFI / TUB International Colloquium,
Berlin Germany, October 2002 (originally accepted to the September 2001 conference, which was rescheduled due to 9/11 attacks)

Carl Steidley and Stephen Dannelly
"Choo Choos, Robots and Computer-Based Instrumentation for Students"
*2002 ASEE Annual Conference and Exposition Proceedings,* CD-ROM
Montreal, Quebec, Canada, June16-19 2002

R. Stephen Dannelly and Carl W. Steidley,
"Undergraduate CSMET Research at A&M-CC"
presented by Dannelly at the 13th International Conference on College Teaching and Learning,
Jacksonville, Florida, April 9-13, 2002

R. Stephen Dannelly and Carl W. Steidley
"A National Science Foundation Supported Undergraduate CSMET Research Project",
*The Journal of Computing in Small Colleges*, Vol. 17, No. 5, pp. 13-17, April 2002.

R. Stephen Dannelly, Carol Binkerd, Carl W. Steidley,
"Practical Experience with CSMET Affinity Groups",
*Proceedings of the Annual American Society for Engineering Education-Gulf Southwest Conference,*
CD-ROM, Session III B, Paper 1, Lafayette, Louisiana, March 2002.

Carl Steidley and R. Stephen Dannelly
"A Multi-Purpose Real-Time Learning Environment",
*Proceedings of the ISCA 14th International Conference on Computer Applications in Industry and Engineering*, pp.268-271, Las Vegas, Nevada, November 2001.

Patrick Michaud, Carl Steidley, Gary Jeffress, and Stephen Dannelly
"Real-Time Data Collection and The Texas Coastal Ocean Observation Network",
presented by Michaud at INTERMAC2001 Joint Technical Conference, Tokyo Japan, November 2001.

R. Stephen Dannelly, Carl Steidley, Mario Garcia
"Integrating Sensor Use Throughout the Curriculum"
*Proceedings of the Instrumentation, Systems, and Automation Society 2001*, Monterrey Mexico,
October 2001.

R. Stephen Dannelly and Carl Steidley,
"A Student Laboratory Environment for Real-Time Software Systems Development",
*The Journal of Computing in Small Colleges*, March 2001.

Carl Steidley and R. Stephen Dannelly
"A Laboratory for Incorporating Computer Science Theory with Real-World Interests and Difficulties"
*Proceedings of the Twelfth International Conference on College Teaching and Learning,* March 2001
♦ Award Winning Conference Paper

Carl Steidley and R. Stephen Dannelly
"A Laboratory for Incorporating Computer Science Theory with Real-World Interests and Difficulties"
*Selected Papers from the 12th International Conference on College Teaching and Learning*
edited by J.A. Chambers

R. Stephen Dannelly,
"Use of a Mobile Robot in a Data Structures Course",
*The Journal of Computing in Small Colleges*, March 2000.

R. Stephen Dannelly and Carl Steidley,
"A Hardware Laboratory for Incorporating Computer Science Theory with Real-World Interests and Difficulties", *Proceedings of the American Society of Engineering Educators - Gulf South West Conference*, March 2000.

R. Stephen Dannelly and David E. Leasure,
"Real Problems for Real People: A Capstone Course for Computer Science",
*The Journal of Computing in Small Colleges*, March 1998.

J.H. Cross and R.S. Dannelly,
"Reverse Engineering Graphical Representations of X Source Code",
*International Journal of Software Engineering and Knowledge Engineering*, June 1996.

R.S. Dannelly,
"Reverse Engineering X Window System based Graphical User Interface Source Code",
Ph.D. Dissertation, Auburn University, December 1995.

R.S. Dannelly,
"An interdisciplinary Software Engineering Course",
*Second International Symposium on Knowledge Acquisition, Representation and Processing*,
September 1995.

R.S. Dannelly and J.H. Cross,
"Reverse Engineering X Source Code",
*Proceedings 32nd Annual ACM Southeast Conference*, March 1994.

R.S. Dannelly, J.H. Cross, and K.H. Chang,
"Verification of Expert Systems",
*Proceedings 29th Annual ACM Southeast Conference*, 1991.

R.S. Dannelly,
"Verification of Expert Systems",
Masters Thesis, Auburn University, March 1990.

R.S. Dannelly,
"Verification and Validation of Expert Systems",
*Proceedings 27th Annual ACM Southeast Conference*, 1989.

K.H. Chang, J.H. Cross, and R.S. Dannelly,
"Software Safety for the Space Station Flight Tele-Robotic Servicer",
*Space Station Automation IV*, November 1988.

J.H. Cross, K.H. Chang, R.S. Dannelly,
"Software Safety in Space",
*Proceedings 26th Annual ACM Southeast Conference*, 1988.

## Professional Development Activities

- Division Chair, Computers in Education Division of the
  American Society for Engineering Education, August 2006 - August 2008
- Proposal Reviewer, National Science Foundation,
  Course Curriculum and Laboratory Improvement Program, July 2006
- Program Chair, Computers in Education Division of the American Society for Engineering Education, 2005 and 2006 Annual National Conferences
- Papers and Program Chair, Consortium for Computing Sciences in Colleges: South Central Region, 2000 - 2004
- Coordinator of the ASEE's Computers in Education Division's Poster Presentations at ASEE's 2004 National Meeting
- Attended National Computational Science Institute Modeling Workshop, Summer 2002
  (also served as the A&M-CC Site Host)
- Attended curriculum workshop at Project Kaleidoscope 2001 Summer Institute
- Proposal Reviewer, National Science Foundation,
  Course Curriculum and Laboratory Improvement Program, 2000
- Invited Presenter, NSF Showcase, at SIGCSE 2000
- Attended Workshop on Teaching Undergraduate Image Processing
  at IEEE Computer Vision and Pattern Recognition 2000
- Member
  - Association for Computing Machinery
  - American Society for Engineering Education
  - Upsilon Pi Epsilon (honor society for computing sciences)

## Funded Research

*Improving the Pipeline in Computer Science*
NSF CISE Research Infrastructure - Minority Institution Infrastructure
Sept 2003 - Aug 2008 **$1,350,000** plus $2,110,000 in A&M-CC matching funds
PI: Dannelly; Co-PIs: Fernandez, Garcia, Kar, and Nystrom

*TAMU-CC Computer Science, Engineering Technology, and Mathematics Scholarship Program*
NSF Computer Science, Engineering, and Mathematics Scholarships
Jan 2001 – Dec. 2002 **$275,000**
PI: Steidley; Co-PI: Dannelly

*Predictive and Preventative Maintenance Expert System – Phase Three Support*
Subcontract from Knowledge Based Systems Inc. and U.S. Army
Jan. 2001 – Aug. 2001 **$26,000**
PI: Dannelly

*Building an Interdisciplinary Research Infrastructure in Applied Computer Science, GIS, Engineering Technology, and Mathematics*
NASA Institutional Research Award
Sept. 2000 – Aug 2004 **$1,920,367** plus $627,490 in A&M-CC matching
PI: Steidley; Co-PIs: Bachnak, Blount, Dannelly, Michaud, Patterson-McNeill

*Restructuring and Enhancing an Applied Computer Science Program – Planning Proposal*
NSF CISE Minority Institution Infrastructure
Sept. 1998 – Aug 1999 **$49,438**
PI: Steidley; Co-PIs: Dannelly, Guimaraes, Jeffress, Leasure, Michaud, Patterson, Sadovski, Stafford

*A Hardware Laboratory for Incorporating Computer Science Theory with Real-World Interests and Difficulties*
NSF – Course, Curriculum, and Laboratory Improvement – Adaptation and Implementation
Jan. 2000 – Dec. 2001 **$35,687** plus equal amount of A&M-CC matching funds
PI: Steidley; Co-PI: Dannelly

*Shop Traveler Modernization*
Subcontract from Knowledge Based Systems Inc. and the U.S. Army
Nov. 1999 – Sept. 2000 **$65,000**
PI: Dannelly

*Predictive and Preventative Maintenance Expert System - Year Two*
Subcontract from Texas Engineering Experiment Station and the U.S. Army
July 1999 – June 2000 **$40,000**
PI: Dannelly

*Aircraft Flight Safety Life Enhancement System*
Subcontract from Texas Engineering Experiment Station and the U.S. Army
Sept. 1997 – August 1998 **$40,000**
PI: Dannelly

*Predictive and Preventative Maintenance Expert System - Year One*
Subcontract from Texas Engineering Experiment Station and the U.S. Army
Sept. 1997 – August 1998 **$40,000**
PI: Dannelly