Curriculum Vitae
SHERRI S. FRIZELL, Ph.D.

EDUCATION

Ph.D., Computer Science & Software Engineering, Auburn University, Auburn, AL
Research Concentration: *Human-Computer Interaction (HCI) and Educational Technology*
M.C.S.E, Computer Science & Engineering, Auburn University, Auburn, AL
Research Concentration: *Human-Computer Interaction (HCI) and Usability Engineering*
B.S., Computer Science, Jackson State University, Jackson, MS

EXPERIENCE

Associate Professor, Computer Science Department (2009-present)
Prairie View A&M University, Prairie View, TX

- Responsibilities include instruction at the undergraduate and graduate level, grant writing, research and publication, student advisement, committee work, and other activities as designated.

Assistant Professor, Computer Science Department (2003-2009)
Prairie View A&M University, Prairie View, TX

- Responsibilities included instruction at the undergraduate and graduate level, grant writing, research and publication, student advisement, committee work, and other activities as designated.

Graduate Program Coordinator, Computer Science Department (2006-2009)
Prairie View A&M University, Prairie View, TX

- Responsibilities included graduate course scheduling, interfacing with prospective graduate students, evaluation of admissions applications, academic advisement and registration, management and evaluation of graduate teaching assistants, curriculum reviews and updates, development of program marketing materials, and review of Master's projects.

Program Coordinator, STEM Prep Enrichment Camp (2006-2008)
Prairie View A&M University, Prairie View, TX

- Responsibilities included curriculum development, coordination of field trips and program activities, development of camp schedule, management of day-to-day operations, management of undergraduate employees, and review of participant applications.

Pre-Professional Engineer, Next Generation Web Interfaces Division (Summer 2002)
IBM T.J. Watson Research Center, Yorktown Heights, NY

- Examined the role of tool support for design pattern usage during various phases of the software development life cycle and explored the use of social-technical design patterns to support the development of social networking applications.

Computer Scientist (Summers 1996-2000)
National Security Agency, Fort Meade, MD

- Conducted applied research in web-based information visualization including the development of visual data representations for data analyst tool and generating 3D maps from Digital Terrain Elevation Data; evaluated agency's computer-based training software initiative.

PUBLICATIONS and PRESENTATIONS

Refereed Articles and Book Chapter

1. Lewis, C., Bonner, F., Rice, D., Alfred, M., Nave, F., & **Frizell, S.** (2011). African American, academically gifted, millennial students in METS disciplines at Historically Black Colleges & Universities(HBCUs): Factors that impact successful degree completion. In H. Frierson & W. Tate (Eds)., *Diversity in Higher Education: Beyond Stock Stories and Folktales: African Americans' Paths to STEM Fields*, vol.11, pg. 23-46. Emerald Group Publishing, ISBN 9781780521688.
2. Obiomon, P., **Frizell, S.**, Nave, F., and Holland, A. (2010). The impact of globalism on the engineering student. *Potentials, IEEE* , 29(4), July-Aug, pp.15-16.
3. **Frizell, S.** and Nave, F. (2009). Increasing the Retention of Females of Color in Engineering and Technology Degree Programs through Professional Development Activities. *Journal of Systemics, Cybernetics and Informatics*, 7(1), pg. 56-59.
4. Bonner, F., Alfred, M., Lewis, C, Nave, F., and **Frizell, S.** (2009). Historically Black Colleges and Universities (HBCUs) and Academically Gifted Black Students in Science, Technology, Engineering, and Mathematics (STEM): Discovering the Alchemy for Success. *Journal of Urban Education: Focus on Enrichment*, 6(1), pp. 122-136.
5. **Frizell, S.** and Hübscher, R. (2008). Using Design Patterns to Support E-learning Design. In L. Lockyer, S. Bennett, S. Agostinho, & B. Harper (Eds.), *Handbook of Research on Learning Design and Learning Objects: Issues, Applications and Technologies.* IGI Global, Information Science Reference, ISBN 978-1-59904- 861-1.
6. Nave, F., Cui, S., Obiomon, P., **Frizell, S.**, and Perkins, J. (2007). Charting the Course: The Impact and Implications of the Mentoring Experiences of Female Faculty in the College of Engineering at an HBCU. *Faculty Resource Network On-line Journal*, Fall 2007.

Refereed Conference Proceedings

1. Lin, L., **Frizell, S.,** and Yang, Y. (2010). Infusing tablet pcs and interactive learning technology into computer science education to enhance student learning. In *Proceedings of the 2010 ASEE Annual Conference & Exposition*, Austin, TX.
2. **Frizell, S.**, Lin, .L., and Krajca, C. (2010). Advanced Learning Lab and Real Test – Enhancing Student Learning and Performance Assessment. In *Proceedings of the 2010 ADMI Symposium*, Jackson, MS.
3. Bonner, F., Nave, F., **Frizell, S.**, Villa, C., and Cook, H. (2009). Internal Motivation as a Factor for the Success of African-American Engineering Students enrolled in a Historically Black College and University (HBCU). In *Proceedings of the 2009 ASEE Annual Conference & Exposition*, Austin, TX.
4. **Frizell, S.** and Nave, F. (2008). Work in Progress – Reexamining the Problem of Engineering Persistence of African-American Students. In *Proceedings of the 38th ASEE/IEEE Frontiers in Education Conference*, Saratoga Springs, NY.
5. Bonner, F., Nave, F., Alfred, M., Lewis, C, and **Frizell, S.** (2008). Historically Black Colleges and Universities (HBCUs) and Academically Gifted Black Students in Science, Technology, Engineering, and Mathematics (STEM): Discovering the Alchemy for Success. In *Proceedings of Excellence in Education 2008 Conference, International Centre for Innovation in Education (ICIE)*, Paris, France.

6. *(Best Paper Award)*
   Frizell, S. and Nave, F. (2008). Increasing the Retention of Females of Color in Engineering and Technology Degree Programs through Professional Development Activities. In *Proceedings of 6th International Conference on Education and Information Systems, Technologies and Applications (EISTA),* Orlando, FL.
7. **Frizell, S.** and Nave, F. (2008). A Preliminary Analysis of Factors Affecting the Persistence of African American Females in Engineering Degree Programs. In *Proceedings of the 2008 ASEE Annual Conference & Exposition,* Pittsburgh, PA.
8. *(25-39% Acceptance Rate)*
   Frizell, S. (2006). Evaluating the Usefulness of Design Patterns in Supporting Novice Course Designers: First Experiences. In T. Reeves & S. Yamashita (Eds.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* (pp. 1193-1197), Honolulu, Hawaii.
9. Nave, F., **Frizell, S.**, Obiomon, P., Cui, S., and Perkins, J. (2006). Prairie View A&M University: Assessing the Impact of the STEM-Enrichment Program on Women of Color. In B. Bogue & R. Marra (Eds.)**,** *Proceedings of 2006 Women in Engineering Programs & Advocates Network (WEPAN) Conference,* Pittsburgh, PA.
10. *(25-39% Acceptance Rate)*
    Frizell, S. and Hübscher, R. (2002). Supporting the Application of Design Patterns in Web-Course Design. In P. Kommers & G. Richards (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications* (pp. 544-549), Denver, Colorado.
11. *(25-39% Acceptance Rate)*
    Frizell, S. and Hübscher, R. (2002). Aligning Theory and Web-based Instructional Design Practice with Design Patterns**.** In G. Richards (Ed.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2002* (pp. 298-304), Montreal, Canada.

Presentations

1. Bonner, F., Nave, F., Alfred, M., Lewis, C., and **Frizell, S.** (2009). Academically Gifted African American Students in Historically Black Colleges and Universities (HBCUs): Challenges and Opportunities in Science, Technology, Engineering, and Mathematics (STEM) Disciplines. 2009 Association for the Study of Higher Education (ASHE) Conference, Vancouver, CA.
2. Bonner, F., Alfred, M., Nave, F., Lewis, C., and **Frizell, S.** (2009). Historically Black Colleges and Universities (HBCUs) and STEM: Academically Gifted African American Students Achieving Success. *The International Centre for Innovation in Education (ICIE) Conference,* Ulm, Germany.
3. Bonner, F., Nave, F., Lewis, C, Alfred, M., and **Frizell, S.** (2009). Academically Gifted Black Students in Science, Technology, Engineering and Mathematics (STEM): A Focus on Success in Historically Black College and University (HBCU) Contexts. Presentation at the *Blacks in Higher Education Conference,* Annual National Conference on Blacks in Higher Education, Atlanta, GA.
4. Bonner, F., Nave, F., Alfred, M., Lewis, C, and **Frizell S.** (2008). Academically Gifted Black Students in Science, Technology, Engineering, and Mathematics. Presentation at the *Texas Association for the Gifted & Talented 31st Annual Professional Development Conference*, Dallas, TX.

5. Bonner, F., Nave, F., Alfred, M., Lewis, C, and **Frizell, S.** (2008). An Empirical Investigation of the Success Factors Influencing Academically Gifted (High-Achieving) African American Student Success in Science, Technology, Engineering, and Mathematics (STEM) disciplines. Presentation at the *55th Annual Convention of the National Association for Gifted Children*, Tampa, FL.
6. Nave, F., Lewis, C., Bonner, F., **Frizell, S.**, Alfred, M., Long, J., and Cook, H. (2008). Gifted African-Americans in STEM at HBCU's: An Empirical Investigation Examining the Keys to Academic Success. Presentation at the *Think Tank for African American Progress,* Memphis, TN.
7. **Frizell, S.** (2008). Implementation of Interdisciplinary Capstone Design Projects across two Universities. Poster presentation at the *39th ACM Technical Symposium on Computer Science Education,* Portland, Oregon.
8. Bonner, F., Nave, F., Alfred, M., Lewis, C, and **Frizell, S.** (2008). An Empirical Investigation of the Success Factors Impacting Academically Gifted African American Students in Science, Technology, Engineering and Mathematics (STEM) Disciplines at Historically Black Colleges and Universities (HBCUs). Presentation at the *Excellence in Education 2008 Conference, The International Centre for Innovation in Education (ICIE),* Paris, France.
9. Cui, S., **Frizell, S.**, Obiomon, P., Perkins, J., and Nave, F. (2007). Female Faculty Mentoring: A Case Study of the Experiences of Female Faculty in the College of Engineering at Prairie View A&M University. Panel Presentation at the *2007 Faculty Resource Network National Symposium,* Charlotte, NC.
10. Augustin, J. and **Frizell, S.** (2006). A Classification and Characterization of Computer Supported Collaborative Learning Tools based on System Features and Instructional Model. Poster Presentation at the *4th Annual TAMUS Pathways Research Symposium,* Prairie View, TX.
11. Torbay, R., Doucet, T., and **Frizell, S.** (2005). Three Dimensional Rocket Data Visualization. Poster Presentation at the *3rd TAMUS Pathways Research Symposium,* Kingsville, TX.
12. **Frizell, S.** (2002). *A Pattern-based Approach to Supporting Web-based Instructional Design*. Invited Talk, IBM T.J. Watson Research Center, Hawthorne, NY.
13. **Frizell, S.** (2002). *Tool Support for Design Pattern Usage during Software Development*. Poster Presentation, IBM T.J. Watson Research Center, Hawthorne, NY.
14. **Frizell, S.** (2002). PatternEdge: Tool Support for Web-Course Design Patterns. Poster Presentation at the *8th Annual Conference for African-American Researchers in the Mathematical Sciences (CAARMS8),* Princeton University, Princeton, NJ.

Other Publications

1. **Frizell, S.** (1999). *Computer-Based Training*. Technical Report, National Security Agency.
2. **Frizell, S.** (1998). *Information Visualization with VRML and the Hyperbolic Tree Java Toolkit*. Technical Report, National Security Agency.

RESEARCH GRANTS

Funded Grant Proposals

1. Yang, F., **Frizell, S.**, and Lin, L. (2010). *Target Infusion Grant: Infusing Tablet PC and Problem Based Learning into Computer Science Curriculum to Enhance Student Ability in Computing Problem Analysis and Software Modeling.* National Science Foundation, Amount: $ 168,470, (09/01/10 - 08/31/13).
2. **Frizell, S.** (2009). *BPC-AE: Collaborative Research: The Alliance for the Advancement of African-American Researcher in Computing (A4RC).* National Science Foundation, Amount: $87,301, (09/01/09 - 08/31/12).
3. **Frizell, S.** and Li, L. (2009). *Infusing Advanced Educational Technology into Computer Science and Engineering Instruction to Enhance Student Engagement and Learning Effectiveness.* Thurgood Marshall Fund Technology Award for Faculty Innovation Program. Amount : $49,856, (9/1/09 – 12/31/10).
4. Lin, S., Fuller, J., **Frizell, S. (Senior Personnel)**, and Ketkar, M. (2008). *L-3 Software Simulation*. L-3 Government Services, Inc., Enterprise Information Technology Solutions, Amount: $657,411, (09/01/08 - 05/31/11).
5. Nave, F., Bonner, F., Lewis, C., **Frizell, S.,** and Alfred, M. (2007). *Education Research Project: An Empirical Investigation of the Success Factors Impacting African American Students in Engineering and Technology at Historically Black Universities.* National Science Foundation, Amount: $1,042,514, (09/01/07 - 08/31/11).
6. Nave, F. and **Frizell, S.** (2007). *PVAMU Society of Women Engineers: Leadership Series for Women of Color in the College of Engineering.* Lockheed Martin Corporation, Amount: $2,000, (01/01/08-06/31/08).
7. Nave, F. and **Frizell, S.** (2007). *"Sisters Speak": Professional Development Program for Women of Color in the College of Engineering at Prairie View A&M University.* National Society of Women Engineers, Amount: $3,285, (09/01/07 - 05/31/08).
8. **Frizell, S.** and Nave, F. (2006). *The Identification of Factors Affecting the Retention and Attrition of African-American Female Students in Computer Science and Engineering*. Engineering Information Foundation, Amount: $24,032, (01/01/07 - 12/31/07).
9. Nave, F. and **Frizell, S.** (2005). *Empowered to Lead: Increasing the Leadership Skills of Prairie View A&M University Society of Women Engineers.* ExxonMobil Foundation, Amount $4,500, (01/01/06 - 05/31/07).
10. **Frizell, S.** (2005). Texas A&M University – Boeing Interdisciplinary Engineering Capstone Design Project, Amount: $2000. Role: Faculty Advisor.

SCHOLARLY and PROFESSIONAL ACTIVITIES

Professional Memberships

- Association for Computing Machinery (ACM)
- Association for Advancement of Computing in Education (AACE)
- Society of Women Engineers (SWE)
- American Society for Engineering Education (ASEE), (2008-2009)
- National Society of Black Engineers (NSBE), (2007-2008)
- Women in Engineering Programs & Advocates Network (WEPAN), (2006)
- Usability Professionals Association (UPA), (2003-2005)

- Black Data Processing Association (BDPA), (2002-2005)

Journal/Conference Reviewer

- International Conference on Education and Information Systems, Technologies and Applications, (2008-2010)
- ACM Technical Symposium on Computer Science Education, (2006-2010)
- IEEE Potentials, (2009)
- Journal of Computing in Small Colleges, (2008)
- ASEE/IEEE Frontiers in Education Conference, (2006-2008)
- ASEE Annual Conference & Exposition, (2006-2008)
- Handbook of Research on Learning Design and Learning Objects: Issues, Applications and Technologies, (2007)

Conference Roles

- Session Chair, ASEE/IEEE Frontiers in Education Conference, (2008)

Book Proposal Reviewer

- Pearson Education, Review of C++ instructor supplements, (2009)
- Prentice Hall, Review of proposal for new book, *C++: Learning by Doing* by Albeit, R. and Breedlove, T., (2006)

Grant Proposal Reviewer

- National Science Foundation, TUES Program, (2010)
- National Science Foundation, REU Program, (2006)
- National Science Foundation, CCLI Program, (2006)

STUDENT SUPERVISION

Completed

1. Iboumi Abibo. (2011). *Development of an Interactive Touch Application for the HP TouchSmart System.* M.S., Computer Science.
2. Katrieva Jones. (2009). *FunGram: A Tool to Facilitate Problem Solving Among First Year Programming Students*. M.S., Computer Science.
3. Brenda Richardson. (2009). *Leveraging IT Infrastructure Library (ITIL) Best Practices Framework for IT Service Management (ITSM) for Universities*. M.S., Computer Information Systems.
4. Tonkia Pete. (2009). *Usability Evaluation of Speech Recognition Software*. M.S., Computer Information Systems.
5. Wei Qin. (2005). *RFID-based Automated Industrial Laundry Process.* M.S., Computer Information Systems.
6. Mohammed Mondle. (2005). *CourseIDC: A Course Authoring Tool with Instructional Design Content.* M.S., Computer Science.

Thesis Committee Member

1. Zhou, Dongliang. (2010). *Virtual Reality System for College Algebra Learning*. M.S., Computer Science.

2. Zhuting, Du. (2006). *Hybrid Data Mining Techniques for Business Applications.* M.S., Computer Information Systems.
3. Zhixiang Lu. (2006). *Mapping Relational Schema to XML Schema with the Consideration of Relational Dependency Constraints.* M.S., Computer Information Systems.
4. Guoquan Sun. (2006). *Service-Oriented Architecture in E-Business Applications Integration.* M.S., Computer Information Systems.
5. Shaila A. Jyoti. (2005). *Improving Ant-Based Routing Algorithms in Telecommunication Networks.* M.S., Computer Science.
6. Jing Lai. (2004). *A Clique Algorithm for Motif Finding Problem.* M.S., Computer Science.

COURSES DEVELOPED/TAUGHT

Undergraduate Courses

1. Introduction to Computer Education
2. Introduction to Computer Science
3. Computer Science I & Lab
4. Computer Science II & Lab
5. Web Design & Multimedia
6. Object-Oriented Analysis & Design
7. System Analysis & Design
8. Software Engineering
9. Ethics & Social Issues in Computing
10. Human-Computer Interaction
11. Senior Design Project II
12. Modeling & Simulation

Graduate Courses

1. Software Engineering
2. Software Engineering Processes
3. Human-Computer Interaction
4. Electronic Commerce

Distance Learning Courses Developed

1. Software Engineering (graduate level)
2. Electronic Commerce (graduate level)