

**Curriculum Vitae**  
**SHERRI S. FRIZELL, Ph.D.**

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**ACADEMIC BACKGROUND**

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**Ph.D., Computer Science & Software Engineering**

Auburn University, Auburn, AL

**M.C.S.E., Computer Science & Engineering**

Auburn University, Auburn, AL

**B.S., Computer Science**

Jackson State University, Jackson, MS

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**APPOINTMENTS & POSITIONS**

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**Professor**, Computer Science Department (2018-present)  
Prairie View A&M University, Prairie View, TX

**Associate Professor**, Computer Science Department (2009-2018)  
Prairie View A&M University, Prairie View, TX

**Program Coordinator** (2014)

Summer Research Experience for High School and Undergraduates Program

Prairie View A&M University, Prairie View, TX

- Responsibilities included development of program activities and management of program operations.

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

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

- Responsibilities included graduate course scheduling, evaluation of admissions applications, academic advisement and registration, management and evaluation of graduate teaching assistants, curriculum reviews and updates, and development of program marketing materials.

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

- Responsibilities included curriculum development, coordination of program activities, development of camp schedule, management of day-to-day operations, and management of student workers.

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**PUBLICATIONS & PRESENTATIONS**

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*(Publications/presentations with undergraduate or graduate students denoted by\*/\*\* respectively.)*

**Journal Articles and Refereed Book Chapters**

1. Nave, F., Bonner, F., Lewis, C, **Frizell, S.**, Parker, F., and McFrazier, M. (2016). African American Students' Academic Achievement in STEM at HBCUs: Faculty Perceptions on the Contributing Factors for Academic Success. In L. Flowers, L. Flowers & J. L. Moore

- III (Eds.), *Advancing Educational Outcomes in Science, Technology, Engineering and Mathematics at Historically Black Colleges and Universities*. New York: University Press of America.
2. Rice, Delores, Bonner, Fred, Lewis, Chance, Alfred, Mary, Nave, Felecia M., and **Frizell, Sherri**. (2016). Reversing the Tide in Science, Engineering, Technology and Mathematics (STEM): Academically Gifted African American Students in Historically Black Colleges & Universities, *Journal of Research Initiatives*, 2(1).
  3. Bellam, K., Yang, Y., **Frizell, S.**, & Robinson, T. (2014). Improving Energy Efficiency and Reliability of Disk Storage Systems. *International Journal on Recent and Innovation Trends in Computing and Communication*, 2(8).
  4. Lewis, C., Bonner, F., **Rice, D.**, **Cook, H.**, & Alfred, M., Nave, F., & **Frizell, S.** (2011). African American, Academically Gifted, Millennial Students in STEM disciplines at Historically Black Colleges & Universities (HBCUs): Factors that Impact Successful Degree Completion. In H. Frierson & W. Tate (Eds.), *Beyond Stock Stories and Folktales: African Americans' Paths to STEM Fields*, vol.11, pg. 23-46. Emerald Group Publishing.
  5. Obiomon, P., **Frizell, S.**, Nave, F., and Holland, A. (2010). The impact of globalism on the engineering student. *Potentials, IEEE*, 29(4).
  6. **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).
  7. 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.
  8. **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.
  9. 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. Williams, R., **Frizell, S.**, Nave, F., & Thompson, A. (2018). Using Experiential and Collaborative Learning to promote Careers in Engineering. In Proceedings of the 2018 ASEE Gulf-Southwest Section Annual Conference, Austin, TX.
2. **Villa, C.**, Nave, F., **Frizell, S.**, Alfred, M., & Bonner, F. (2011). The Role of Faculty in the Retention of African American Gifted Students in STEM Programs in HBCUs. In *Proceedings of the 2011 ASEE Annual Conference & Exposition*, Vancouver, Canada.
3. 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.

4. **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.
5. Bonner, F., Nave, F., **Frizell, S.**, \*\*Villa, C., & \*\*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.
6. Bonner, F., Alfred, M., Nave, F., Lewis, C. & **Frizell, S.** (2009). An empirical investigation of the success factors impacting African American students in Science, Technology, Engineering and Mathematics disciplines at Historically Black Colleges and Universities. *Proceedings from the Excellence in Education 2009: Future Minds and Creativity Conference*. Paris, France.
7. **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.
8. 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.
9. **Frizell, S.** and Nave, F. (2008). Work in Progress – Reexamining the Problem of Engineering Persistence of African-American Students. In *Proceedings of the 38<sup>th</sup> ASEE/IEEE Frontiers in Education Conference*, Saratoga Springs, NY.
10. 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.
11. **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 6<sup>th</sup> International Conference on Education and Information Systems, Technologies and Applications (EISTA)*, Orlando, FL. (Best Paper Award)
12. **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.
13. **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. (25-39% acceptance rate)
14. 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.
15. Obiomon, P., Nave, F., and **Frizell, S.** (2006). Strategies for Facilitating and Improving the Retention of Students at Risk. In *Proceedings of the 2006 ASEE Gulf-Southwest Annual Conference*, Baton Rouge, LA.

16. **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. (25-39% acceptance rate)
17. **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. (25-39% acceptance rate)

### **Presentations**

1. Bonner, F.A. II, Marbley, A.F., **Frizell, S.**, and Smith, S. (June, 2019). Models of Success: Identifying Factors that contribute to faculty production of minority STEM graduates-Implications for HBCUs and Beyond. Presentation at the *Texas Southern University 2019 Impact on Student Learning and Development Conference*, Houston, TX.
2. Bonner, F.A. II, marbley, A.F., and **Frizell, S.** (February, 2019). Models of Success: Identifying Factors that Contribute to Faculty Production of Minority STEM Graduates - Implications for HBCUs and Beyond. Presentation at the *AAAS 2019 ERN Conference in STEM*, Washington, D.C.
3. Bonner, F.A. II, marbley, a.f., **Frizell, S.**, and Smith, S. (February, 2019). Models of Success: Identifying Factors that contribute to faculty production of minority STEM graduates-Implications for HBCUs and Beyond – A Case Study. Presentation at the *3rd Annual Conference for Academic Research in Education (CARE Conference)*, Las Vegas, NV.
4. Bonner, F.A. II, marbley, a. f., **Frizell, S.**, and Smith, S.L. (January, 2019). Models of Success: Identifying Factors that contribute to faculty production of Minority STEM Graduates: Implications for HBCUs and Beyond. Workshop presented at the *17th Annual Hawaii International Conference on Education, Honolulu, Hawaii*.
5. Bonner, F.A. II, marbley, a.f., and **Frizell, S.** (February, 2018). Models of Success: Identifying Factors that Contribute to Faculty Production of Minority STEM Graduates - Implications for HBCUs and Beyond. Presentation at the *AAAS 2018 ERN Conference in STEM*, Washington, D.C.
6. Baukal, C., **Frizell, S.** et al., (2017). Barriers to Participation in Co-ops, Internships, and Undergraduate Research for Under-served groups. Panel at *2017 ASEE Annual Conference & Exposition*, Columbus, OH.
7. Carson, L., **Frizell, S.**, Moore, Q. (2017). Grant Writing. Panel at *Panther Institute: Grant Writing Workshop – V*, Houston, TX.
8. **Frizell, S.**, Mehrubeoglu, R., & Moore, Q. (2016). Life as an Academician at a Historically Black College or University (HBCU) and Hispanic Serving Institute (HSI). Panel at *4th Annual AGEP Conference*, Prairie View, TX.
9. **Frizell, S.** (2015). State of Black Computing. Panel at *HBCU Tech Inclusion Workshop*, Houston, TX.
10. \*Comeaux, A. and **Frizell, S.** (2016). Analysis of Multimodal Development Environments. Poster Presentation at *TAMU LSAMP Symposium*, Corpus Christ, TX.

11. Nave, F., Bonner, F., Lewis, C, **Frizell, S.**, and Alfred, M. (2013) Social Capital & STEM Education. *American Educational Research Association Annual Conference*, San Francisco, CA.
12. \*Nelson, D. and **Frizell, S.** (2012). A Survey of Technology Applications for Promotion of Nutrition and Physical Activity. Poster Presentation at *ADMI Symposium on Computing at Minority Institutions*, Howard University, Washington, DC.
13. 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.
14. 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.
15. 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. *2009 American Association of Blacks in Higher Education National Conference*, Atlanta, GA.
16. Bonner, F., Nave, F., Alfred, M., Lewis, C, and **Frizell S.** (2008). Academically Gifted Black Students in Science, Technology, Engineering, and Mathematics. *Texas Association for the Gifted & Talented 31<sup>st</sup> Annual Professional Development Conference*, Dallas, TX.
17. 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. Poster presentation at *55th Annual Convention of the National Association for Gifted Children*, Tampa, FL.
18. 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. *Think Tank for African American Progress*, Memphis, TN.
19. **Frizell, S.** (2008). Implementation of Interdisciplinary Capstone Design Projects across two Universities. Poster presentation at the *39<sup>th</sup> ACM Technical Symposium on Computer Science Education*, Portland, Oregon.
20. 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 at the *2007 Faculty Resource Network National Symposium*, Charlotte, NC.
21. \*\*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.
22. \*Torbay, R., \*Doucet, T., and **Frizell, S.** (2005). Three Dimensional Rocket Data Visualization. Poster Presentation at the *3<sup>rd</sup> TAMUS Pathways Research Symposium*, Kingsville, TX.
23. **Frizell, S.** (2002). *A Pattern-based Approach to Supporting Web-based Instructional Design*. Invited Talk, IBM T.J. Watson Research Center, Hawthorne, NY.

24. **Frizell, S.** (2002). *Tool Support for Design Pattern Usage during Software Development*. Poster Presentation, IBM T.J. Watson Research Center, Hawthorne, NY.
25. **Frizell, S.** (2002). *PatternEdge: Tool Support for Web-Course Design Patterns*. Poster Presentation at the 8<sup>th</sup> Annual Conference for African-American Researchers in the Mathematical Sciences (CAARMS8), Princeton University, Princeton, NJ.

## FUNDED PROPOSALS

1. Thompson, A. and **Frizell, S.** (2017). *Girls Accelerating and Learning STEM (GALS) Camp*. Texas Higher Education Coordinating Board, Amount: \$11,727. Funding Period: (6/1/2017-8/31/2017).
2. **Frizell, S.**, Bonner, F., and Marbley, A. (2017). *Models of Success: Identifying Factors that contribute to faculty production of minority STEM graduates – Implications for HBCUs and Beyond*. National Science Foundation, Amount: \$349,971, Funding Period: (6/1/2017-5/31/2020).
3. **Frizell, S.**, Thompson, A., Rice, D., Cui, S., & Harris, K. (2016). *Engineering Scholars Program: Fostering the Next Generation of STEM Leaders*. National Science Foundation, Amount: \$997,508, Funding Period: (9/15/2016-8/31/2021).
4. **Frizell, S.** (2015). *An Analysis of Multimodal Interaction Development Environments. (Internally funded)*. Amount: \$20,000, Funding Period: (5/15/2015 – 8/15/2015).
5. **Frizell, S.** (2012). *Web-based Multimodal Interface Development with VoiceXML and WAMI*. PVAMU ADVANCE-PAID Program (Internally funded). Amount: \$10,000, Funding Period: (7/1/2012 – 5/31/2013).
6. Nave, F., Bonner, F., **Frizell, S.**, Alfred, M., & Lewis, C., (2011). *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: \$46,000 - supplement, Funding Period: (09/01/11 - 08/31/12).
7. 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, Funding Period: (09/01/10 - 08/31/13).
8. **Frizell, S.** (2009). *BPC-AE: Collaborative Research: The Alliance for the Advancement of African-American Researchers in Computing (A4RC)*. National Science Foundation, Amount: \$87,301, Funding Period: (09/01/09 - 08/31/12).
9. **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, Funding Period: (9/1/09 – 12/31/10).
10. 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).
11. 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: \$1,007,146, Funding Period: (09/01/07 - 08/31/10).

12. 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).
13. 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).
14. **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).
15. 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).
16. **Frizell, S.** (2005). Texas A&M University – Boeing Interdisciplinary Engineering Capstone Design Project, Amount: \$2000. Role: Faculty Advisor.