CHERYL D. SEALS, Ph.D.

Associate Professor - Computer Science & Software Engineering
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EXECUTIVE SUMMARY OF QUALIFICATIONS

Experience

- 15 years of experience in Auburn University Samuel Ginn College of Engineering – Associate Professor of CSSE.
- 8 years of experience as a Member of Alabama Power Academic Excellence Advisory Board.
- 18 months of experience as Acting Director Alabama Power Academic Excellence Program.
    - Scholarship management and scholarship awarding for over 160 awards.
    - 16 professional development activities coordinated and organized for students, Sunday Tutorial, etc.
    - Recruiting of students for Auburn University AEP, undergraduate and graduate engineering.
    - Student mentoring and academic counseling and providing activities promoting student success.
    - Assist in interviewing and hiring coordinators and student personnel
    - Prepare program reports for College, Alabama Power et al. (Funding Agencies) and Advisory Board

Leadership

- Provided leadership and direction to the Alabama Power Academic Excellence Program team.
- Experience developing relationships with Alabama Power and other corporate friends of Auburn University.
- Co-Executive Director of iAAMCS.org Institute of African Americans Mentoring Computer Science.
- STARS Executive Steering Committee starsalliance.org since 2006-2017.
- Co-Chair Computing Research Association – Women / Coalition to Diversity Computing CRA-W/CDC Distinguished Lecturer Series sponsored by Computing Research Association.
- National Conference Committee Co-Chair ACM SIGCSE 2014/2015.

Research & Development

- Strong communication and presentation skills and invited to give over 60 talks on research, mentoring or student professional development.
- Strong development member for Auburn research organization with collaborative grants in excess of $13,600,790 with Auburn University share $3,125,780 through 24 grants.
- Strong researcher having supervised and graduated over 60 graduate students as major professor.
    - 8 PhD, 115 MS & 36 REUs (50% Female and 62.5% African American PhD students)
    - More than 70 publications with 27Journals; 28Moderately to Highly Competitive/Esteemed Conferences).
        - 28 strong-moderately strong publications as associate professor 16J;12HC/MC.

Outreach & Student Development

- Since 1998, Dr. Seals has worked with retention and outreach scholarship programs to improve STEM education at all levels: K-12 (e.g. Upward Bound, Boys & Girls Clubs), undergrad (e.g. tutoring) & graduate, and National programs.
- Outreach Advocate for local and national community over the last 10 years has provided over 2500 hours per year of community outreach service to local K-12 schools through STARSalliance.org.
- Provided service learning and research opportunities for students since 2006 through Starsalliance.org and peer tutoring for department for last ten years.
- Development efforts to support SWE student organization.

Research Statement

My research focuses on Human Computer Interaction and developing applications to improve the usability of products for many different populations. In many cases, we work to develop strategies for reuse by identifying and developing strategies, which will facilitate novice programmers to create simulations. Work with the novice community is realized with end user programming/visual programming techniques, and reduces the cognitive baggage of having to first learn to program to attain this goal. One community of study interest is K-12 school teachers and their students with End User Programming techniques. My work with the computer science community facilitates student engagement by creating applications to increase intrinsic motivation. My areas of specialization in Human Computer Interaction are the following: User Interface Design, Usability Studies, Educational Game Design & Development, and Computer Supported Collaborative Work supporting K-12 and senior citizen communities. Some of my human centric computing research leverages the pervasive nature of computing through social media, networks. We have studied many social medial applications and phenomena like Facebook, Twitter, WebCT, Moodle, Edmodo, etc. and have found that these applications have been very successful and transformative to our ways of thinking about and interacting with others. The benefits of social networking are that millions of users interact on this media daily, but we have found this media problematic for the youth population. More security and safeguards must be enacted to protect children's online privacy and protection. This has moved part of my Human Centric Computing research into the realm of cloud computing system to provide the usability and ease of use of Facebook, while providing protection for participants that will allow the system to support thousands of users in an online educational community. In addition, my research focuses on developing usability models that support self-supporting and sustainable groups. One project that supports communities of practice in a social web-based system is our For Youth For Life (FYFL) project http://www.fyflnetwork.org/4h/badges/ and this year we are working to improve the security of this application full deployment to target community.

Game Design & Development and Cultural Computing.

With an integration of computer science education, game theory, game design & development, I have developed two courses in game design and development. The rationale was to integrate computer games as creative and challenging assignments. Today's students have grown up exposed to gaming, interactive environments, and vivid 3D. Computer gaming has the capacity to attract many new students to computer science and information technology majors. This creates an advantage of meeting students excited about this area and recruiting some of these motivated students continued to research with me to create educational gaming system as Computer Supported Collaborative Work (CSCW). In the area of CSCW, we study the work practice and technology characteristics of many populations in attempts to improve their understanding and use of computer applications. One research project (i.e. Seniors in Second Life) was a longitudinal study, which employed a mixed method approach to data collection and analysis, including the use of standardized surveys, measures of physical fitness and physiology, observations in their retirement community, and interviews. The senior citizens participate in research designed to develop their skills in computing and for the participatory development of improved systems for seniors. The potential significance of this project is to create a valid and reliable model for outreach to retirement communities and other centers for senior citizens. Another CSCW study supports a K-12 school district in their learning of computer science concepts. Curriculum is delivered and achievements are celebrated through virtual community. The significance of the K-12 community is to increase computer literacy, study the integration of curriculum with computing technology and interest more students in computer science as a future technology career. We also have two other projects that support educational applications. The beauty and joy of computing is a project that seeks to teach computing to K-12 through online delivery of curriculum and presenting parts of the curriculum in more game centric fashion http://spider.eng.auburn.edu/bjc/homepage/index.php. Similarly our Edutainment project seeks to teach mathematics to high school students through online delivery and educational math games.

Teaching Statement

Cheryl D. Seals

Teaching offers the opportunity to help shape the future by stimulating the minds of the workforce of tomorrow. In my pursuit of more formal education, Seals attended Grambling State University and received dual degrees in Computer Science and Mathematics Education. In preparation for teaching computer science, my educational foundation consists of a broad base of fundamental computing. Also, I received graduate education from North Carolina A&T State University and from Virginia Polytechnic Institute and State University, through these schools I have been exposed to many different types of teaching strategies and styles. Drawing from this diverse experience gives me a unique opportunity to understand why not just teaching, but "good teaching" by teachers who care about their students is very important. My hope is that students in our classes learn valuable tools that will help them be successful upon graduation these students be contributors and leaders of technological advances and innovation. My goal as a teacher is not just to lecture, but also to inspire enthusiasm, get students to actively participate in their education, and facilitate their learning with proper educational scaffolding. For some students, computer science and mathematics courses are hard and confusing; some say, "I just don't get it!" I believe that with adequate support that almost any student that really applies them self with the proper support structure can be successful.

In addition to teaching, I believe that mentoring is very valuable for student's success. In computer science and engineering programs there are proportionately fewer women and minorities in these areas, and I would hope to begin or to contribute to ongoing efforts of building support networks to recruit and improve the success rate of these students. During all of my computer science studies I can only remember one woman that I had as an instructor, which at times was discouraging. Teaching offers the opportunity to help shape the future by stimulating the minds of the workforce of tomorrow. In my pursuit of more formal education, I attended Grambling State University and received dual degrees in Computer Science and Mathematics Education. In preparation for teaching computer science, my educational foundation consists of a broad base of fundamental computing. Also, I received a M.S. at North Carolina A&T State University and received my Ph. D. from Virginia Polytechnic Institute and State University. Through these schools, I have been exposed to many different types of teaching strategies and styles. Drawing from this diverse experience, gives me a unique opportunity to understand why not just teaching, but "Good teaching" by teachers who care about their students is very important.

I have always wanted to make a difference in the world, and in a field such as Computer Science. I will be able to make an impact on our future society. To work competently in any field as a professional, one needs the essential tools of the trade. I feel that I have a broad educational foundation and love for the inquiry-enlightenment process. Being blessed with many God-given talents, it is my duty to be a positive role model in my community. As college professor, I have been be given the means to reach many young adults, by teaching and nurturing their talent. I can strive to be a living affirmation that your dreams and goals are attainable.

I have instructed introductory computing subjects through advanced topics in computer science. I have thoroughly enjoyed working with students whenever I was needed. I have taught computer science and programming to high school students and incoming students during my summers, which was very rewarding and challenging. Based on my research experience and academic foundations of Human Computer Interaction (HCI) and Software Engineering (SE), I instruct courses in other related areas (i.e. HCI, User Interface Design & Development, Game Design & Development, and Artificial Intelligence). HCI and User Experience are emerging as important foundational science for understanding the roles of humans and computers, and what are the best methods available for designers to exploit these relationships and improve user experience.

Courses Taught: Human Computer Interaction; User Interface Design & Development; Artificial Intelligence; Game Design & Development; Computer Ethics

PROFESSIONAL EXPERIENCE

2010-present **Associate Professor - Computer Science and Software Engineering,** Auburn University
Ph.D., Computer Science, *Virginia Polytechnic Institute and State University.*

- Strong communication and presentation skills and invited to give over 50 talks on research, mentoring or student professional development.
- Research funding with collaborative grants in excess of $13,600,790 with Auburn University share $2,763,444 from 25 funded grants.
- Research direction with graduating over 60 graduate students (8 PhD, 59 MS; 7 current PhD, supervised 36 REUs and approx. 70 publications (1BC; 27 Journal; 45 Conference proceedings).
- Developed and teaching 4 courses to Computer Science Graduates and Undergraduates
- Outreach; serving 2500 hours of community outreach for over 10 years.
- Service; strong service at all levels department, college, university and national

8.2014-1.2016 Alabama Power Academic Excellence Program. – Acting Director, Auburn University

- Scholarship management and scholarship awarding for over 160 awards.
- 16 professional development activities coordinated and organized for students, Sunday Tutorial, etc.
- Recruiting of students for Auburn University AEP, undergraduate and graduate engineering.
- Student mentoring and academic counseling and providing activities promoting student success.
- Assist in interviewing and hiring coordinators and student personnel
- Prepare program reports for College and Funding Agency and Engineering Advisory Board
- Management of dept. resources and processes for 3 direct reports and approx. 300 students.
- Additional support of AEP summer bridge program 1-month summer 2016 and REUs summer 2017.

2004-2010 **Assistant Professor - Computer Science and Software Engineering,** Auburn University
Ph.D., Computer Science, *Virginia Polytechnic Institute and State University.*

- Developed and delivered 2 additional computing graduate and undergraduate courses
- Research Funding through winning collaborative grants
- Research Direction; graduating first 20 MS graduate students and first PhD and first 12 REUs and first 10 Journal articles.

2003-2004 **Instructor- Computer Science and Software Engineering,** Auburn University
Ph.D., Computer Science, *Virginia Polytechnic Institute and State University.*

- Delivered undergraduate theoretical computing course in Artificial Intelligence

EDUCATION

2004 Ph.D., Computer Science, *Virginia Polytechnic Institute and State University.*
Dissertation Title: A Framework for Reuse in Visual Programming Environments:
Supporting Novice Programmer Development of Educational Simulations
Advisor: Dr. Mary Beth Rosson

1997 M.S., Computer Science, *Virginia Polytechnic Institute and State University.*

1995 **M.S., Software Engineering**, *North Carolina Agricultural & Technical State University* (Inducted into Upsilon Pi Epsilon Computer Science Honor Society)

1993 B.S., Mathematics Education, *Grambling State University*, Grambling, Louisiana.

1990 B.S., Computer Science, *Grambling State University*, Grambling, Louisiana.
(Inducted into Kappa Delta Pi Education Honor Society)

Contracts/Grants Funding Total: $13,600,790 - AU Share $3,125,780

Note: 24 grants with 14 funded by the National Science Foundation and 10 intramurally funded by the Auburn VP of Research or VP of Outreach. Collaborative scholarship is fundamental to research in the areas of Human Computer Interaction and Broadening Participation (i.e. to improve ecosystems), therefore the majority of this funded research is dependent on building strong national research communities. 2 NSF grants under review ($1.77M under NSF review).

1. **Seals, C.,** AU Principal (5%), "NSF INCLUDES: Makerspace with Tuskegee University", NSF INCLUDES, Federal, AU $7,550. Start of funding: September 2017, End of funding: August 2019. This is preliminary proposal award and we will submit $12M INCLUDES Spr2019 (AU potential $800K).

2. **Seals, C.,** Principal (15%), "BPC-AE: NSF BPC-AE, IAAMCS The Alliance for African-American Researchers in Computing Sciences", NSF BPC, Federal, $317,667.00 Start of funding: May 2013, End of funding: August 2019. This proposal has been invited to submit one more cycle. a continuing award and PIs will submit $7M renewal BPC-Alliance Sept 2018 (AU potential $700K).
3. **Seals, C.,** Principal (15%), "BPC-AE: The STARS Alliance (STARS3): A National Community for Broadening Participation through Regional Partnerships", NSF BPC, Federal, $104,075.00 Start of funding: August 2011, End of funding: December 2017.
4. Baskiyar, S., (PI), **Seals, C.,** Co-Principal (15%), "Educating Talented Scholars in Computer Science and Software Engineering", NSF, Federal, $625,000.00. Start of funding: August 2010, End of funding: June 2018.
5. Yu, W., Principal, **Seals, C.,** Co-Principal (15%), Tian, H., Co-Principal, Pindzola, M., Co-Principal, "CNS1059376, II-New: A Compute and Storage Cluster for Multidisciplinary Research on Computer Systems and Scientific Simulations", NSF CNS, Federal, $458,685.00. Start of funding: March 2011, End of funding: March 2014.
6. Cook, J., Principal (60%), **Seals, C.,** Co-Principal (40%), "For Youth, for Life: An eLearning Environment for Youth: A Proposal in Response to Auburn University Intramural Grants Program", Auburn University Vice President of Research, Auburn University, $150,000.00. Start of funding: February 2011, End of funding: February 2013.
7. **Seals, C.D,** Morris, S.M., Thomas, C.M., Tripp, L.O. & Lovett, G., AU Outreach Scholarship Grant 2010: KEMET Academy (Knowledge, Excellence in Mathematics Equilibrium and Technology), 5/2010 – 5/2011, $20,000.
8. Dozier, G.V. (PI-NCA&T), **Seals, C.D.** (Auburn PI), Collaborative Research: BPC-AE: The Alliance for the Advancement of African-American Researcher in Computing (A4RC), NSF, 01/01/2010 – 12/31/2011, $1,492,281, AU Share: $37,960.
9. Gilbert, J.E. & **Seals**, C.D. (PI), Collaborative Proposal: BPC-DP: Incorporating Cultural Tools for Math and Computing Concepts, NSF, 03/01/2009 – 2/29/2012, $60,959.
10. Gilbert, J.E. (PI) & **Seals**, C.D., NSF Collaborative Research: BPC-DP: African-American Researchers in Computing Sciences (AARCS), NSF, 12/1/2008 – 5/1/2010, $199,952, AU Share: $112,450.
11. Dahlberg, T. (PI-UNCC), **Seals**, C.D. (AU Coordinator), Gilbert, J.E. (Senior Personnel), et. al., NSF BPC-A: The STARS Alliance: A Southeastern Partnership for Diverse Participation in Computing, NSF, 3/1/2008 – 3/1/2011, $2,000,000, AU Share: $125,075.
12. Tripp, L.O., **Seals**, C.D, Davis-May, D., AU Outreach Scholarship Grant 2008: Camp KEMET (Knowledge, Excellence in Mathematics Equilibrium and Technology), 5/2008 –5/2009, $20,000.
13. Gilbert, J.E., **Seals**, C.D.(Co-PI, 20%) & Jackson, J. Collaborative Research: BPC-DP: African-American Researchers in Computing Sciences (AARCS), NSF, $341,311.
14. Eglash, R. (PI), Barnes, T., **Seals**, C. (AU Coordinator). NSF BPC: Culturally Situated Design Tools, NSF Leading Institution: Rensselaer Polytechnic. Total Amount: $500,000, AU Subcontract: $20,000.
15. **Seals**, C.D. NSF IPY: International Polar Year: Community Ice Sheet Model, NSF, 3/1/2007 –3/1/2009, $ 90,000.
16. Davis May, D., **Seals**, C.D, Thomas, C.M., Tripp, L.O., AU Outreach Scholarship Grant 2006: Camp KEMET (Knowledge, Excellence in Mathematics Equilibrium and Technology), 5/2007 –5/2008, $20,000.
17. **Seals**, C.D., Suh, L**.,** Auburn University Breeden Teaching Grant, 5/2007 – 5/2008, $1,000.
18. Gilbert, J.E. (PI), **Seals, C.D.**, (Co-PI), Dozier, G.V. & Jackson, J.F.L., NSF BPC-DP: African-American Researchers in Computing Sciences (AARCS), NSF, 3/1/2006 – 3/1/2009, $409, 288, AU Share: $318,473.

19. Dahlberg, T. (PI-UNCC), **Seals**, C.D. (AU Coordinator), Gilbert, J.E. (AU CoPI), NSF BPC-A: The STARS Alliance: A Southeastern Partnership for Diverse Participation in Computing, NSF, 3/1/2006 – 3/1/2009, $2,000,000, AU Share: $235,075.
20. **Seals**, C.D., Davis, D.J., et al. Auburn University Breeden Teaching Grant, 5/2006 – 5/2007, $2,000.
21. **Seals**, C.D. Auburn University Title IV Grant, 5/2006 – 5/2007, $20,000.
22. King-Jupiter, K.L. (PI), Davis May, D., **Seals**, C.D., Thomas, C.M., Tripp, L.O., AU Outreach Scholarship Grant 2006: Camp KEMET (Knowledge, Excellence in Mathematics Equilibrium and Technology, 5/2006-5/2007, $20,000.
23. **Seals**, C.D. Auburn University Title IV Grant, 5/2005 – 5/2006, $10,000.
24. **Seals**, C.D. Auburn University Title IV Grant, 5/2004 – 5/2006, $8,500.

Fully Developed Extramural Grants Submitted 2017 Total: $1,760,809

25. Davis, V., Davis, E., & **Seals, C.D.** (2018). GC HEROES: Grand Challenges - Helping Engineers Reach Out and Excite Students: GC HEROES: Grand Challenges - Helping Engineers Reach Out and Excite Students, NSF DRL, Federal, AU $652,756.00. Submitted November 6, 2017.
26. Rankin, Y., Thomas, J. & Seals, C. D. (2018). Collaborative Research: Supporting the Development of Computational Algorithmic Thinking Capabilities in African American Elementary Students. NSF DRL, Federal, AU $1,108,053.00. Submitted November14, 2017.
27. Seals, C. D. & Thomas, J. (2018). REU Site Game Development for Social Change. NSF, Federal, AU $ 409,707. Submitted August 2017. Declined.
28. Baskiyar, S. & Seals, C. D. (2018). Educating Future Leaders in Compter Science & Engineering. NSF S-STEM, Federal, AU $999. 979 Submitted March 29, 2017. Declined.

Fully Developed Extramural Grants Submitted 2018 Total: $1,760,809

29. Davis, V., Davis, E., & **Seals, C.D.** (2018). GC HEROES: Grand Challenges - Helping Engineers Reach Out and Excite Students: GC HEROES: Grand Challenges - Helping Engineers Reach Out and Excite Students, NSF DRL, Federal, AU *$652,756.00*. Submitted November 6, 2017. Declined August 2018, will revise and resubmit.
30. Rankin, Y., Thomas, J. & **Seals, C. D.** (2018). Collaborative Research: Supporting the Development of Computational Algorithmic Thinking Capabilities in African American Elementary Students. NSF DRL, Federal, AU *$1,108,053.00*. Submitted November14, 2017. Declined June 2018 will revise and resubmit.
31. **Seals, C. D.** & Thomas, J. (2018). REU Site Game Development for Social Change. NSF, Federal, AU $ 409,707. Submitted August 2017. Declined.
32. Baskiyar, S. & **Seals, C. D.** (2018). Educating Future Leaders in Compter Science & Engineering. NSF S-STEM, Federal, AU $999. 979 Submitted March 29, 2017. Declined.

Grants Under Development (4 NSF grants in preparation $2.052M)

33. Cook, J. A., & **Seals, C. D.** (Sept 2018). Auburn Community STEM Centers: Bringing STEM to Alabama's rural Black Belt, submitted September 2018 for AU internal competition for NSF AISL.
34. Davis, E, Davis, V, Lakin, J. & **Seals, C.D.** GC Heroes submitted for AU internal competition for NSF AISL. Davis, V., Davis, E., & **Seals, C.D.** (2018). GC HEROES: Grand Challenges - Helping Engineers Reach Out and Excite Students, NSF DRL, Federal, AU $652,000 and team has submitted for AU internal competition for NSF AISL and worked on preliminary experiment and revised components for NSF AISL.
35. **Seals, C.,** Principal (15%), "BPC-AE: NSF BPC-AE, IAAMCS The Alliance for African-American Researchers in Computing Sciences", NSF BPC, Federal, AU potential $400k. End of current cycle

funding: April 2019 and team developing full proposal for NSF BPC planning to submit $7-9M Fall 2018.

36. **Seals, C.,** AU Principal (10%), "NSF INCLUDES: Makerspace with Tuskegee University", NSF INCLUDES, Federal, AU $600,000. Start of proposal funding: September 2017, End of funding: August 2019 and team is developing full proposal for NSF INCLUDES is preliminary proposal award and planning to submit $5-8M INCLUDES SPR2019 (AU potential $600K).
37. Seals, C., Speights, M., Bailey, D. (submission planned October 2018). Advanced Phonetic Transcription Tools. Carnegie Foundation, National, New Designs to Advance Learning. (AU potential $400K).

PUBLICATIONS

Thesis: A Framework for Learning and Reuse in Visual Programming Environments: Supporting Novice Programmer Development of Educational Simulations (2004).

Committee:
Dr. Mary Beth Rosson, Dept. of Computer Science, Virginia Polytechnic Institute & State University (advisor)
Dr. John Carroll, Depts. of Computer Science and Psychology, Virginia Polytechnic Institute & State University
Dr. Roger Ehrich, Dept. of Computer Science, Virginia Polytechnic Institute & State University
Dr. Rex Hartson, Dept. of Computer Science, Virginia Polytechnic Institute & State University
Dr. John Burton, Department Head, Education Teaching and Learning, Virginia Polytechnic Institute

Book
B1. Swanier, C. A., Seals, C. D., and Doswell, F. editors. HERstory: Untold Stories of Black Women PhDs in Computing call for submission Feb2018, with deadline for submission Fall 2018, peer reviewed with publication date planned Summer/Fall 2019.

Refereed Journals *(*student, N=26 and* N=1 under review, revise and resubmit*)*

1. **Seals, C.D.**, Asipade, A*. Cao, Y*. & Bassy, R*. (2018). Java Zoo: A tool for interactive Java Instruction. IOSR Journal of Engineering and Innovation Trends in Computing and Communication (IJRITCC), 8pgs. Impact Factor: 5.837. ISSN: 2321-8169. May 2018.
2. **Seals, C.D.**, Tripp, L.O. Cao, Y*. (2018). The Process of Developing Animated Cases as Pedagogy supporting Classroom Management Instruction. International Journal of Education and Social Science (IJESS), Vol. 5, No. 4, 11-22. May 2018.
3. **Seals, C. D**., Cao, Y.* (2018). Online Educational System Security Improvement, IOR Journal of Engineering (IOSRJEN) Impact Factor: 4.027. April 2018.
4. Tripp, L.O., Seals, C. D., Bassy, R.* Design and Analysis of Advanced Learning Technology for Classroom Management, revised & resubmitted June 2018 to *Internet Learning Journal - Policy Studies Organization*, under review (accepted, revised and resubmit for Summer/Fall 2018 publication). 6.
5. **Seals, C.D.,** Cao, Y.*, Bassy, R*. (2017). Research-based Website for Alabama Micro Nano Science and Technology Center. *International Journal of Emerging Technology and Advanced Engineering*, Vol. 7 No. 12, 15pgs, December 2017.
6. Li, X., Shih, P. C., Li, X., & **Seals, C.** (2018). A Case Study of Novice Programmers on Parallel Programming Models. *Journal of Computers*, 13(5), 490-503.
7. **Seals, C. D.,** Tripp, L.O., Bassy, R*. (2017). The Spectrum Educational Tool: Design and Development of eLearning Technology for Classroom Management to *IAFOR Journal of Education - Special Issue on "Technology in the Classroom"* Vol. 5, No. 2, 12 pgs. May 2017.

8. Tripp, L.O., **Seals, C. D.,** (2017). The Use of Animated Case Studies as a tool to Influence Pre-service Teacher Preparedness in Classroom Management. *International Journal of Education and Social Science*, Vol. 4 No. 3 March 2017.
9. **Seals, C.** (40%), Zhang, Q. (40%), Cook, T. (20%). An M-Learning Application to Enhance Children's Learning Experience, October 16 Vol. 4 No. 10, *International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC)*, ISSN: 2321-8169, PP: 214 – 222.
10. X. Li*, P-C. Shih, J. Overbey, **C. Seals**, A, Lim. Comparing Programmer Productivity in OpenACC AND CUDA: An Empirical Investigation. *International Journal of Computer Science, Engineering and Application. International Journal of Computer Science, Engineering and Applications (IJCSEA),* Vol.6, No.5: 1-15.
11. **Seals, C.D.** (60%), Swanier, C.A.* (40%) (2015). Changing the Face of Technology, *International Journal of Advanced Technology in Engineering and Science (IJATES),* VOL. *No: 03, Issue No. 11*, November 2015.
12. **Seals, C. D.** (60%), Tripp, L.O. (40%). (2015). Multimedia applications to support classroom management. *Journal of Computer Science, Vol. 11, No. 10,* 2015.
13. Tripp. L. O. (60%), **Seals, C. D**. (40%). (2014). Spectrum Educational Applications supporting Classroom management. *Journal of K-12 School Technology, VOL. 7.NO.4* (p264-272).
14. **Seals, C. D.** (20%), Swanier, C. (20%), Nyagwencha, J. N.* (20%), Cagle, A.* (20%), Dawkins, S.* (10%), Houser, N.* (10%). (2013) Developing New Mathematical Applications Utilizing Smart Table Access. *Journal of School Educational Technology, VOL. 7. NO.4* (ISSN: 0973-2217, E-ISSN: 2230 – 7133)), p24-32.
15. Davis, D.J., Davis-Maye, D., Thomas, C., **Seals**, **C.D.** (20%), Alfred, D.M., King-Jupiter, K., Tripp, L.O., & Lovett, G.C. (2011). KEMET Academy: A University Outreach Model for Addressing the Wholeness of Learning in a Rural Context. International Journal of Progressive Education, Vol. 7 No. 1, pp. 6-27.
16. Jackson, J. F. L. (25%), Charleston, L. J. (25%), Gilbert, J. E. (25%), **Seals, C.** (25%) (2011). Changing Attitudes about Computing Science at Historically Black Colleges and Universities: Benefits of an Intervention Program Designed for Undergraduates. *Journal of African American Studies* (DOI 10.1007/s12111-011-9189-7), pp. 1-12. http://www.springerlink.com/content/d0061vg235425026/
17. Swanier, C., **Seals**, C. D. (33%) and Billionniere, E. (2009). Visual Programming: A Programming Tool for increasing mathematics achievement. Journal of Educational Technology, July 2009. Vol. 5 No.2, pp. 1-5.
18. **Seals, C.D.** (25%), Moses, W.*, Martin, A., Nyagwencha, J., Clanton, K., Thomas, Chippewa M. & Doswell, F. (2008). Life Long Learning: Seniors in Second Life Continuum. Journal of Computer Science Vol. 4, No. 12, pp. 1064-1070, 2008.
19. **Seals, C.D.** (25%), * Rouse, K., *McMillian, *Y. Williams, A., Gilbert, J. and Chapman, R. Computer Gaming at Every Age: A Comparative Evaluation of Alice. Journal of Educational Technology, Vol.5 No. 3. pp. 1-8.
20. **Seals, C. D.**, Hundley, J. & Strange, L. (2008). "Game Design & Development: Using computer games as creative and challenging assignments, Journal of Educational Technology, Vol.5 No. 2. pp. 1-12.
21. *Williams, A., *Rouse, K., **Seals, C.D.** (15%), & Gilbert, J.E. (2008). Enhancing Reading Literacy in Elementary Children using Programming for Scientific Simulations, *International Journal on E-Learning, Vol.* 8, No. 1, pp. 57-69.
22. **Seals, C.,** *Clanton, K., and *Agarwal, R., Doswell, F. and Thomas, C. (2008). LifeLong Learning: Becoming Computer Savvy at a Later Age, Journal of Educational Gerontology, 34: 1055-1069.

23. Gilbert, J.E., *Williams, A. & **Seals, C.D. (**2007) Clustering for Usability Participant Selection, *Journal of Usability Studies*, Vol. 3, No. 1, pp. 41 – 53. http://www.upassoc.org/upa_publications/jus/2007november/JUS_gilbert_nov2007.pdf
24. Dozier, G., *Cunningham, H., *Britt, W., Wang, Y., **Seals, C.,** and *Zhang, F. (2006). Distributed Constraint Satisfaction, Restricted Recombination, and Genetic Protocols, *Journal of Applied Soft Computing*, Elsevier, 7, 3, pp. 1005-1011.
25. Dozier, G., Carnahan, B., **Seals, C.**, Kuntz, L.-A., and Fu, S.-G. (2005). "Collaborative Design Using an Interactive Distributed Evolutionary Algorithm," *The International Journal of Education and Information Technology*, September 2005, 2(1), pp. 21-35.
26. Rosson, M. B. and **Seals, C.** (2000). Learning and Reuse of a Visual Programming Languag**e**, IEEE, *Visual Languages Journal*. September, 2000, pp. 85-93.
27. Kengeri, R, **Seals, C.** (33%), Harley, H., Reddy, H., Fox. E.A. (1999). Usability study of digital libraries: ACM, IEEE-CS, NCSTRL, NDLTD. *International Journal of Digital Libraries*. August 24, 1999 2: 1-13.

Refereed Conference Publications (*student, N=44)

Note: 44 conference papers published or accepted with **28 of these in Highly and Moderately Competitive Conferences** indicated with + based on discipline, and Students are indicated with *). *N=39 since arriving at Auburn University with 24 HC-MC.*

28. +Speights-Atkins, M., **Seals, C.D.** & Bailey, D. (2018). The Automated Phonetic Transcription Grading Tool: Where Computer Science Meets Clinical Problem Solving in Communication Disorders, SENCER Summer Institute August 2018. National Center for Science & Civic Engagement *(highly acknowledged in Education Scholarship), 6pg*.
29. +Tripp, L.O., **Seals, C.D.**, Thomas, M.* (*2018)*. Online Learning: Promoting Technology and Science Learning Experiences for Students Well Beyond the Classroom, The 22nd Annual Meeting & Learning Expedition Symposia: A World Science & Education Program, July 2018, 6pg. Killarney, Ireland *(highly acknowledged in Education Scholarship sponsored by NASA)*.
30. +Tripp, L.O. **Seals, C.D.** (2018). Virtual Education: An Enhanced Alternative Learning and Practice Tool for Pre-service Teachers, The Society for Information Technology & Teacher Education, 6 pg. Washington, D.C., United States, March 26-30, 2018 *(highly acknowledged in Teacher Education).*
31. +Bailey, C. M., **Seals, C. D.** (2017). Evaluation of Web Usability Guidelines for Teens. ACM SE '17, ACM SE '17: Proceedings of the South East Conference, 8 pg. Atlanta, GA, April 2017.
32. X. Li*, P-C. Shih, X-Q. Li, **Seals, C.** (2016). A Case Study of Novice Programmers on Parallel Programming Models. 9th International Conference on Computer and Electrical Engineering (ICCEE). December 7-11, 20162016
33. +Swanier, C., **Seals, C.,** Bassy, R. (2016). Virtual Environments for Education: An Empirical Study of Implementing Education into 3D Video Games and Applications, EdMedia Conference 2016 on CD, 8pg. Vancouver BC, June 2016.
34. Adams, C.* (60%), **Seals, C.** (40%) (2015). Course Builder: A Modularized Framework for Designing and Implementing Web-Based Learning Environments. 2015 *Emerging Researchers* National (ERN) Conference in STEM (6 pg.). Feb. 19- 21st, 2015, in Washington, D.C.
35. Smith, E. B. **Seals, C. D.,** Bernadin, S. (2015). Undergraduate students gaining knowledge through research projects, 6pgs. ASEE Southeast Regional Conference.
36. +Nyagwencha. J.N., **Seals C.D.,** Cook, T., (2012). "Supporting Informal Learning Using a Cloud Tool: An Empirical Usability Study" EdMedia-World conference on Educational Media and technology,

Denver Co, June 26-29 2012.

37. +Swanier, C., **Seals, C. D.** Nyagwencha. J.N., (2012). Video Games: Who really plays them and how can they be used in education? EdMedia-World conference on Educational Media and technology, Denver Co, 6pgs. June 26-29 2012.
38. **+Seals, C.** (25%), Swanier, C. (15%), Hull, E.* (15%), Thorpe, J. (15%), Dawkins, S. (15%), Nyawencha, J.* (15 %) (2012). Implementing Education into 3D Video Game and Applications. 6pgs. *EdMedia 2012.* EdMedia-World conference on Educational Media and technology, Denver Co, June 26-29, 2012.
39. +Adams, C., **Seals, C. D.** (2012). Usability Research: A Preliminary Study of a Modularized Web-Based Learning Environment Framework. In Proceeding of the National Association for Developmental Education 35th Annual Conference. Atlanta, GA, Feb23-26, 2012 (*highly acknowledged in Developmental Education)*.
40. **Seals, C.** (60%), Nyagwencha, J.* (20%), Bolton, A. (20%) (2011). Virtual Educational Communities Supported with Cloud Computing to Share Best Practices. *STARS Alliance Leadership Conference 2011*. Raleigh, NC: starsalliance.org. 6 pgs online proceedings Aug. 6 – 11, 2011.
41. Adams, C., **Seals, C.** (2011). **A**n Online Learning Tool: A Web-Based Environment to Support STEM Education. In Proceeding of the Annual STARS Celebration Conference. Raleigh, North Carolina, 6pgs online proceedings Aug. 6 – 11, 2011.
42. +Nyagwencha, J.* (60%), **Seals, C.** (40%) (2011). A Collaborative Tool for Communities of Practice to Share Best Practices. *HCII Conference 2011*. Orlando, Florida. www.hcii.org, 8pgs on CD.
43. +Bolton, A.T., **Seals, C.D.** (2011). Social Networking and Culturally Situated Design Teaching Tools: Providing a Collaborative Environment for K-12, HCI International 2011, HCI International 2011, Orlando, FL, USA, July 9-14, 2011, Proceedings, Part IV. www.hcii.org, 8 pgs on CD.
44. +Adams, C.* (60%), **Seals, C.** (40%) (2011). A Web-based Learning Environment to Support Chemistry. *HCII Conference 2011*. Orlando, Florida: 14th International Conference, HCI International 2011, Orlando, FL, USA, July 9-14, 2011, Proceedings, Part IV. www.hcii.org, 8 pgs on CD.
45. **Seals, C.** (60%), Nyagwencha, J.* (30%), Bolton, A.* (10%) (2011). Cloud computing to support Effective Educational Communities in Virtual Learning Space. *ADMI conference proceedings*. Clemson, South Carolina. www.admiusa.org
46. Nyagwencha, J.* (60%), **Seals, C.** (40%) (2011). Improving Senior's Computer Skills in SecondLife. *ADMI conference proceedings*. Clemson, South Carolina, 8pgs on CD-ROM www.admiusa.org.
47. Adams, C.* (60%), **Seals, C.** (40%) (2011). User Research of an Educational Web-Based Learning Environment: Preliminary Findings and Experiences. *ADMI conference proceedings*. Clemson, South Carolina 8pgs on CD-ROM www.admiusa.org
48. **Seals, C.D.,** Nyagwencha, J. & Bolton, A. (2011). Cloud computing to support Effective Educational Communities in Virtual Learning Space, *ADMI conference proceedings*. Clemson, South Carolina. 8pgs on CD-ROM www.admiusa.org
49. +Thomas, C. M., Tripp, L. O., **Seals, C. D.** (25%), Brown, P. V., (2010). Virtual Education: An Enhanced Alternative Learning and Practice Tool for Pre-service Teachers and Counselors. Athens Institute for Education and Research, 8pgs. Athens, Greece.
50. Morris, S., Thomas, C., King, P., Lovett, G., **Seals, C.,** Tripp, L.O., and Davis-Maye, D. (2010). Intersections of Gender, Class, and Race: Black Women in the Academy. Diversity Research Initiative Conference 2010.
51. +Davis, D.J., Davis-Maye, D., Thomas, C., Alfred, D.M., King-Jupiter, K., **Seals**, **C.**, Tripp, L.O., & Lovett, G.C. (2009). KEMET Academy: A University Outreach Model for Addressing the Wholeness of

Learning in a Rural Context. Proceedings of the American Institute of Higher Education Conference, Nashville, TN.

52. Bolton, A. T., **Seals, C.,** Thomas, C. Clanton, K, Agarwal, R. Doswell, F. (2009). Seniors in Second Life. Tapia Celebration of Diversity in Computing. March 2009. 8pgs on CD-ROM. Portland Oregon.
53. **Seals, C.,** Agarwal, R., *Rouse, K., *Lindsey, R., *Chilamantula, V., and Chapman, R. (2008). Computer Clubs Programs to Increase Computer Literacy, *ADMI* conference, 6pgs on CD-ROM, April 2008.
54. +Dahlberg, T., Barnes, T., Rorrer, A., **Seals**, C., Lustria, M., and Hawkes L. (2008). The STARS Leadership Corps: Case studies in broadening participation in computing, *IEEE Frontiers in Education* conference, 8pgs. October 2008.
55. **+Seals, C.,** Game programming to bolster student motivation. **(**2008). *IEEE Frontiers in Education conference, 8pgs.* October 2008.
56. **Seals, C.,** *Hundley, J., *Strange, L. The Gaming Approach to Creative Educational Technology accepted to *EISTA 2008 International Conference on Education and Information Systems, Technologies and Applications*, on CD-ROM.
57. +Davis-Maye, D., **Seals**, C., Thomas, C. M., Davis, D. J., Alfred, D, King-Jupiter, K., & Tripp, L.O. (2007). Celebrating the Textures of Rural America: Responding to Individuals and Families Throughout the Life Cycle. *32nd National Institute on Social Work and Human Services in Rural Areas Conference*, July 2007, Montgomery, AL.
58. **Seals, C.** and Tripp, L. (2007). "A Study of Science Teachers Utilizing Visual Programming Techniques", *International Multi-Conference on Society, Cybernetics and Informatics 2007,* July 2007, pp. 207-212.
59. **+Seals, C.D.,** *Zhang, L. & Gilbert, J. (2006). Human Centered Computing Lab Web Site Redesign Effort. *In Proceedings of E-Learn 2006 World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education*, CD-ROM.
60. +*Williams, A., **Seals**, C., *Rouse, K., & Gilbert, J. (2006**).** Visual Programming with Squeak SimBuilder: Techniques for E-Learning in the Creation of Science Frameworks. *In Proceedings of E-Learn 2006 World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education*, CD-ROM.
61. **+Seals, C.,** *Mkpong-Ruffin, I., *Germany, C. (2006). A Minimalist Approach To Object Oriented Programming Instruction. *In Proceedings of E-Learn 2006 World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education*, CD-ROM.
62. **+Seals, C.,** *Gupta, P., *Wilson, C. (2006). Evaluation of SimBuilder Squeak. *In Proceedings of E-Learn 2006 World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education*, CD-ROM.
63. **Seals, C. D**. (2005). Tapia05. Visual Programming for Novice Programmer Teachers, Tapia 2005 Celebration of Diversity in Computing.
64. **+Seals, C.D.,** Rosson, M.B., *Walker, K. (2005). K-12 Teachers as Educational Simulation Developers: A Study of Reuse Programming for the Classroom. Human Computer Interaction International HCII2005, on CD-ROM.
65. +*Strickland F., **Seals**, C.D. (2005). Using Elementary and Undergraduate Students to Compare 3D System with Minimalist Tutorials. *Human Computer Interaction International HCII2005,* on CD-ROM.
66. +Rosson, M. B., Carroll, J. M., **Seals, C. D.,** Lewis, T. L. (2002). Community Design of Community Simulations. ACM *Designing Interactive Systems DIS2002,* July 2002, London, pp. 75-83.
67. **+Seals, C. D.,** (2002). Learning and Reuse in Visual Programming Environments: Simulation Builder for Teachers. *ACM OOPSLA 2002,* November 2002*,* pp. 120-121.

68. **Seals, C. D.,** Rosson, M. B., Carroll, J. M., Lewis, T. L. (2002). Fun Learning StageCast Creator: An exercise in Minimalism and Collaboration. *IEEE Human Centric Computing Languages and Environments HCC02, March 2002*.
69. +Lewis, T. L., Rosson, M. B., Carroll, J. M., **Seals, C. D.** (2002). **A** Community Learns Design: Towards a Pattern Language for Novice Visual Programmers**.** *IEEE Human Centric Computing Languages and Environments HCC'02*, March 2002, p167-176.
70. **+Seals, C**. and Rosson, M. B. (2001). Learning and Reuse in Visual Programming Environments: Teacher Simulation Creation Environment. *IEE HCC '01 2001 IEEE Symposium on Human-Centric Computing Languages and Environments*, September 2001, pp. 177-186
71. +Rosson, M. B. and **Seals, C.** (2001). Teachers as Simulation Programmers: Minimalist Learning and Reuse. ACM *SIG CHI* 2001, April 2001, pp. 237-244.
72. Harley, H., **Seals, C.,** Rosson (1998). A formative evaluation of scenario-based tools for the learning Object-Oriented Design. *Crossroads: ACM Student Magazine*. Winter 1998, pp. 1-5.

Book Chapters

73. Doswell, F., Harley, H., Lewis, T., **Seals, C.,** and Dr. G. Scales. (2003). Adapting to Life as a Graduate Student: Getting Up to Speed on Information Technology, Student's Guide to Graduate and Professional School Success, edited by Farmer. V., p332-344.

Book Chapters in preparation

74. Tate, K., & Tripp, L. O. Cultural Relevancy: Teaching and learning in higher education. Publisher IGI Global and Technology Support for primary science education with call for submission Summer 2018, with deadline for submission Fall 2018, peer reviewed with publication date Spring 2020.

Published Interviews

75. Seals, C. D. (2016). Engineering your world: The importance that engineering will play in the future of the U.S. technology workforce (recorded by Donna Cope/Alabama NewsCenter) http://alabamanewscenter.com/2016/10/11/leap-sets-stage-for-shades-valley-students-futures-in-skilled-trades-engineering-and-technical-jobs/

76. **Seals, C. D.** (2013). A4RC and discussion of challenges and successes in academia. https://www.youtube.com/watch?v=h8SIbvCqQf0 from http://www.a4rc.org "Course Repository" tab.

77. **Seals, C. D.** (2010). A4RC and discussion on benefits of graduate education. Recorded at Tapia Celebration of Diversity in Computing 2009. https://www.youtube.com/watch?v=CEbOJmIkNhA

78. **Seals, C. D.** (2006). *NSF Grants to encourage Diversity Microsoft ,* (March 2006) https://www.mainfunction.com/patp/blog/archive/2006/03/09/489.aspx
79. **Seals, C. D.** (2009). AAAS, Advancing Science Next Wave Science Magazine, Engineer's Corner by Clinton Parks http://nextwave.sciencemag.org/cgi/content/full/2004/01/13/9

Presentation with Published Video

80. **Seals, C. D.** (2014). Artificial Intelligence - Cheryl D. Seals, Auburn University on Vimeo, *Kavli Frontiers of Science, Indonesian - American KFOS*, https://vimeo.com/100872532 July 2014.

Invited Talks and Lectures (N=72)

1. Gosha, K., **Seals, C.**, & Swanier, C.A. (Presenter & Author), "Writing Successful Grant Proposals: Tips and strategies for crafting a highly competitive grant proposal", National Society of Blacks in Computing (NSBC) 2018, nsbc.org, NSF funded, New Orleans, LA, Academic, National, Invited. (August 9 – 11, 2018). N=50.
2. Mack, N., Huff, E. & **Seals, C.** (Presenter & Author), "Publish to Flourish: Panel on best strategies to increase the quantity and quality of your publications", National Society of Blacks in Computing (NSBC) 2018, nsbc.org, NSF funded, New Orleans, LA, Academic, National, Invited. (August 9 – 11, 2018). N=30.
3. **Seals, C.** (Presenter & Author), "The Tenure Process: Strategies for Excelling through the Tenure Process", National Society of Blacks in Computing (NSBC) 2018, nsbc.org, NSF funded, New Orleans, LA, Academic, National, Invited. (August 9 – 11, 2018). N=20.
4. **Seals, C.** (Presenter & Author), ADMI Symposium 2018: Computainment – admiusa.org, NSF, New Orleans, LA, "The Institute of African-American Mentoring in Computing Sciences (iAAMCS): A Program for Broadening Participation in Computing", Academic, National, Peer-Reviewed/Refereed. (April 5 – 8, 2018). N=50.
5. **Seals, C.** (Presenter & Author) (March 2018), Why Graduate School & Funding Your Graduate School Career? Spelman College, Atlanta, Georgia, Academic, Regional, Invited Speaker. (March 2018). N=20.
6. Speights, M., Bailey, D., **Seals, C.D**., Bassy, R., Landrum, M., Li, G., Li, S., Burns, P., Cao, Y. (Jan 26, 2018. Improving Learning Outcomes in Phonetic Transcription Using Automated Software Tools. Conversations in Celebration of Teaching. Poster Presentation, Auburn University. N=30.
7. **Seals, C.** (Presenter & Author) (2017), Why Graduate School & Funding Your Graduate School Career? NSBC Conference, NSF, Atlanta, Georgia, "National Society of Blacks in Computing (NSBC.org)", Academic, National, Invited Speaker, Accepted. (June 2017). N=20.
8. **Seals, C.**, Jones, E., Daly, S. Gosha, K. & Metoyer, R. (2017) (Panel). What type of institution is right for you? The cultures, benefits, and drawbacks of different types of universities (R1, HBCUs, liberal arts). NSBC Conference, NSF, Atlanta, Georgia, "National Society of Blacks in Computing (NSBC.org)", Academic, National, Invited Speaker, Accepted. (June 2017). N=10.
9. **Seals, C.** (Presenter & Author), (2017). ADMI Symposium: The Internet of Things – admiusa.org, NSF, Virginia Beach, VA, "African-American Researchers in Computing Sciences (iAAMCS): A Program for Broadening Participation in Computing", Academic, National, Peer-Reviewed/Refereed, Accepted. (March 23 - March 26, 2017). N=50.
10. **Seals, C.** (Presenter & Author), (2016). "Institute of African-American Mentoring in Computing Sciences (iAAMCS): Why Graduate School?" Presentation at Clafin University for Distinguished Lecture Series. Invited Presentation. (October 2016). N=25.
11. **Seals, C.** (Presenter & Author), (2016). STARS Celebration: Empowering 21st Century Tech Leaders, NSF, Charlotte, N.C. Georgia, "Institute of African-American Mentoring in Computing Sciences (iAAMCS): The benefits of graduate education." Academic, National, Peer-Reviewed/Refereed, Accepted Presentation. (August 2016). N=30.
12. **Seals, C.** (Presenter & Author), (2016). STARS Celebration: Empowering 21st Century Tech Leaders, NSF, Charlotte, N.C. Georgia, "Advancing your career and increasing satisfaction for better Work/ Life Balance.", Academic, National, Peer-Reviewed/Refereed, Accepted Presentation. (August 2016). N=15.
13. **Seals, C.** (Presenter & Author), (2016). NSBC Conference, NSF, Atlanta, Georgia, "National Society of Blacks in Computing (NSBC.org) ~ Inaugural Conference", Academic, National, Peer-Reviewed/Refereed, Accepted. (June 2016). N=35.
14. **Seals, C.** (Presenter & Author), (2016). "Institute of African-American Mentoring in Computing Sciences (iAAMCS): Preserving Cultural Identity in Computer Science & Software Engineering"

Presentation at Tuskegee University Invited Lunch Keynote for Research Day. Invited Presentation. (April 2016). N=90.

15. **Seals, C.** (Presenter & Author), (2016). ADMI Symposium – admiusa.org, NSF, Winston Salem, NC. "African-American Researchers in Computing Sciences (iAAMCS): A Program for Broadening Participation in Computing", Academic, National, Peer-Reviewed/Refereed, Accepted. (March 31-Apr 3, 2016). N=50.
16. **Seals, C.** (Presenter & Author), (2015). ADMI Symposium, NSF BPC, Atlanta, Georgia, "African-American Researchers in Computing Sciences (iAAMCS): A Program for Broadening Participation in Computing, Institute of African American Mentoring in Computer Science", Academic, National, Peer-Reviewed/Refereed, Accepted. (March 2015).
17. **Seals, C.** (Presenter Only), Columbus State University October 2014, NSF STARS Alliance.org, Columbus, Georgia, "Why research? The Benefits of Ph.D. and service learning", Academic, Regional, Invited. (October 2014).
18. **Seals, C.** (Presenter & Author), National Academy of Science. National Academy of Science meeting in Medan-North Sumatra, Indonesia. Academic, National, Peer-Reviewed/Refereed, Accepted. (June 2014).
19. **Seals, C.** (Presenter & Author), ADMI Symposium, NSF BPC, Hampton, Virginia, "African-American Researchers in Computing Sciences (iAAMCS): A Program for Broadening Participation in Computing, Institute of African American Mentoring in Computer Science", Academic, National, Peer-Reviewed/Refereed, Accepted. (April 2014).
20. **Seals, C.** (Presenter Only), Spelman College Geek Week 2013, NSF CE21 Institute for African Americans in Computing Sciences, Spelman College, Atlanta, Georgia, "Why research and the Benefits of obtaining the Ph.D. early in your career", Academic, Regional, Invited. (October 2013).
21. **Seals, C.** (Presenter Only), Georgia Gwinnett College, September 2013, NSF CE21 Institute for African Americans in Computing Sciences. "Benefits of obtaining the Ph.D. early in your career", Academic, Regional, Invited. (September, 2013).
22. S**eals, C.** (Presenter & Author), ADMI Symposium, NSF BPC, Hampton, Virginia, "African-American Researchers in Computing Sciences (A4RC): A Program for Broadening Participation in Computing", Academic, National, Peer-Reviewed/Refereed, Accepted. (April 2013).
23. **Seals, C.** (Presenter Only), Spelman College Geek Week 2012, NSF CE21 Institute for African Americans in Computing Sciences, Spelman College, Atlanta, Georgia, "Benefits of obtaining the Ph.D. early in your career", Academic, Regional, Invited. (October 2012).
24. Nyagwencha. J.N., **Seals C.D.**, Cook, T., "Supporting Informal Learning Using a Cloud Tool: An Empirical Usability Study" EdMedia-World conference on Educational Media and technology, Denver Co, June 26-29 2012. (presentation)
25. **Seals, C.** (Presenter & Author), ADMI Symposium, NSF, Howard University, Washington, D.C., "African-American Researchers in Computing Sciences (A4RC): A Program for Broadening Participation in Computing", Academic, National, Peer-Reviewed/Refereed, Accepted. (April 2012).
26. Nyagwencha, J., **Seals C. D.**, Cook, T., Educational Communities Supported Within a Cloud, *Auburn University Research Week 2012*. (presentation)
27. **Seals, C.** (Presenter & Author), Fort Valley State University Research Day, NSF/CRA, Fort Valley State University, Fort Valley, Georgia, "African-American Researchers in Computing Sciences (A4RC): A Program for Broadening Participation in Computing", Academic, National, Peer-Reviewed/Refereed, Invited. (November 2011).
28. **Seals, C.** (Presenter & Author), Grambling State University Research & Recruiting, NSF, Grambling State University, Grambling, Louisiana, "African-American Researchers in Computing Sciences

(A4RC): A Program for Broadening Participation in Computing", Academic, National, Peer-Reviewed/Refereed, Invited. (October 2011).

29. **Seals, C.** (Presenter Only), Spelman College Geek Week 2011, NSF BPC, Spelman College, Atlanta, Georgia, "Benefits of obtaining the Ph.D. early in your career", Academic, Regional, Invited. (October 2011).
30. **Seals, C.** (Presenter & Author), Spelman College Research & Recruiting, NSF, Spelman College, Atlanta, Georgia, "African-American Researchers in Computing Sciences (A4RC): A Program for Broadening Participation in Computing", Academic, National, Invited. (October 2011).
31. **Seals, C.** (Presenter & Author), STARS Celebration of Leadership, NSF, Raleigh, North Carolina, "Why Graduate School?"**,** Academic, National, Peer-Reviewed/Refereed, Accepted. (August 2011).
32. **Seals, C.** (Presenter & Author), ADMI Symposium, NSF, Clemson University, South Carolina, "African-American Researchers in Computing Sciences (A4RC): A Program for Broadening Participation in Computing", Academic, National, Peer-Reviewed/Refereed, Accepted. (April 2011).
33. Adams, C., **Seals, C.** (2011). A Web-Based Learning Environment to Support STEM Education. ADMI conference, on CD-ROM, April 2011.
34. Invited Talk
    Seals, C.D., (upcoming April 9, 2010). Alliance for the Advancement of African-American Researchers in Computing (A4RC): A Program for Broadening Participation in Computing, 2009 ADMI Symposium, Morgan State University. April 2009.
35. Invited Talk
    Seals, C.D., (April 1, 2010). Alliance for the Advancement of African-American Researchers in Computing (A4RC): A Program for Broadening Participation in Computing**,** 2009 ADMI Symposium, Morgan State University. April 2009.
36. Presentation (invited)
    Seals, C.D., (2010). Alliance for the Advancement of African-American Researchers in Computing (A4RC): A Program for Broadening Participation in Computing, FAMU, Tallahassee, Florida, Feb. 4, 2010.
37. Presentation (invited)
    Seals, C.D., (2010). Alliance for the Advancement of African-American Researchers in Computing (A4RC): A Program for Broadening Participation in Computing, Fort Valley State University, Fort Valley, Georgia, Feb. 5, 2010.
38. Presentation (invited)
    Seals, C.D., (2010). Human Computer Interaction Research, Fort Valley State University, Fort Valley, Georgia, Feb. 5, 2010.
39. Presentation (invited)
    Seals, C.D., (2010). Alliance for the Advancement of African-American Researchers in Computing (A4RC): A Program for Broadening Participation in Computing, University of Arkansas, Pine Bluff, Arkansas, Feb. 26, 2010.
40. Presentation (invited)
    Seals, C.D., (2009). African-American Researchers in Computing Sciences (AARCS): A Program for Broadening Participation in Computing. STARS Celebration of Leadership, Florida State University, Tallahassee, Florida, August 2009.
41. Presentation (accepted to appear)
    Davis, D.J., Davis-Maye, D., Thomas, C., Alfred, D.M., King-Jupiter, K., **Seals, C.,** Tripp, L.O., & Lovett, G.C. (2009). KEMET Academy: A University Outreach Model for Addressing the Wholeness of

Learning in a Rural Context. The American Institute of Higher Education Conference, Nashville, TN. April 29, 2009.

42. Invited Talk
Seals, C.D., (2009). African-American Researchers in Computing Sciences (AARCS): A Program for Broadening Participation in Computing, 2009 ADMI Symposium, Morgan State University. April 2009.
43. Invited Talk
Seals, C.D., (2008). Strategies for Successful Graduate Student Life, Workshop for BGSA, Auburn University Chapter Meeting, Auburn, Alabama, February 25, 2009.
44. Presentation
Seals, C.D., (2008). Introduction to Human Computer Interaction, TSYS Department Colloquium Series Lecture, Columbus State University, Columbus Georgia. December 9, 2008.
45. Invited Talk
Seals, C.D., (2008). Strategies for Successful College Student Life, Provost Leadership Undergraduate Scholarship (PLUS) Program, Auburn, October 16, 2008.
46. Invited Talk
Seals, C.D., User Interface Design and Game Design Research, Future Science Engineering and Mathematics Faculty (FSEM) Auburn, October 15, 2008.
47. **Seals, C.D.**, (2008). Game Design Research and the STARS Alliance**,** Graduate School Day, Spelman College, September, 2008.
48. Presentation
Seals, C.D., (2008). African-American Researchers in Computing Sciences (AARCS): A Program for Broadening Participation in Computing. STARS Celebration of Leadership, Auburn, AL. August 2008.
49. Presentation
Seals, C.D., & Lawrence, A., (2008). The CookBook Approach to Computer Science Outreach. STARS Celebration of Leadership, Auburn, AL. August 2008.
50. Presentation
Seals, C.D., (2008). African-American Researchers in Computing Sciences (AARCS): A Program for Broadening Participation in Computing. STARS Celebration of Leadership, Auburn, AL. August 2008.
51. Invited Talk
Seals, C.D., (2008). African-American Researchers in Computing Sciences (AARCS): A Program for Broadening Participation in Computing, 2008 ADMI Symposium, Hampton, VA. April 2008.
52. Panel
Barnes, T., Lustria, M., Dahlberg, **Seals, C.,** & Lawrence A. (2008). STARS Alliance, Special Interest Group for Computer Science Education (SIGCSE) 2008.
53. Invited Talk
Seals, C.D., (2007). Game Design Research and the STARS Alliance**,** Computer Sciences Seminar Series, Georgia Southern University, November, 2007.
54. Invited Talk
Seals, C.D., (2007). African-American Researchers in Computing Sciences (AARCS): A Program for Broadening Participation in Computing, Future Science Engineering and Mathematics Faculty (FSEM), Auburn University, October 2007.
55. Panel
Barnes, T., Lustria, M. & **Seals, C.**, (2008). STARS Alliance, Grace Hopper Celebration of Women in Computing, Orlando, Florida, October, 2007.
56. Presentation

Seals, C.D., African-American Researchers in Computing Sciences (AARCS): A Program for Broadening Participation in Computing. STARS Celebration of Leadership, Charlotte, NC. August 2007.

57. Invited Talk
Seals, C.D., African-American Researchers in Computing Sciences (AARCS): Broadening Participation in Computing: Graduate School and the Professoriate, CIS COLLOQUIUM Florida A&M University, Florida, March 14, 2007.
58. Invited Talk
Seals, C.D., Strategies for Successful Graduate Student Life, Workshop for Societas Docta, Inc., Montgomery-Tuskegee Chapter Mentee Meeting, Auburn, Alabama, February 25, 2007.
59. Invited Talk
Seals, C.D., African-American Researchers in Computing Sciences (AARCS): Broadening Participation in Computing: Graduate School and the Professoriate, 2007 ADMI Symposium Florida Atlanta, Georgia, Feb, 2007.
60. Gilbert, J.E., and **Seals, C.D.**, Recruiting at Spelman College, February 2007.
61. Invited Talk
Seals, C. D., **In**troduction to Computer Science & User Interface Design, Lagrange High School, Lagrange, Georgia, June 5, 2006.
62. Invited Talk
Seals, C.D., Introduction to User Interface Design & User Interface Issues, World Usability Day, Auburn University, Auburn, AL, November 3, 2006.
63. Invited Talk
Seals, C.D. Gilbert, J.E., Introduction to User Interface Design, World Usability Day, Auburn University, Auburn, AL, November 3, 2005.
64. Technical Paper CSSE04-09: Gerry Dozier, Brian Carnahan, **Cheryl Seals,** Lois-Ann Kuntz, and Ser-Geon Fu, *An IDEA for Design*, July 30, 2004.
65. **Seals, C.D.,** Supporting Educational Software Reuse: Teacher Simulation Builder for Teachers. Research presentation at SIGCSE 2002 Doctoral Consortium (February).
66. **Seals, C.D.**, AWC Faculty and Graduate Student Panel on Academic Careers - Panel Member - February 2002
67. **Seals, C.D.**, Presentation at Engineering Expo - Intro to Computing Careers - October 2001
68. **Seals, C.D.**, Computer Science Graduate Student Expo - Panel Member - October, 2001
69. **Seals, C.D.**, Supporting Educational Software Reuse: Teacher Simulation Creation Environment. Research presentation at SIGCSE 2001 Doctoral Consortium (February). http://www.grinnell.edu/sigcse/sigcse2001/program.html
70. **Seals, C.D.**, Formative Evaluation of Visual Programming Environments for Teacher Creation of Educational Simulations. Research presentation made at SIGCSE 2000 Doctoral Consortium.

Exhibitions (listed N=20, listing does not include 3 summer camps each year for over 10 years (48 exhibitions = 18 listed + 30 not listed).

1. **Seals, C.D**., et al. (September 2018).
Augmented Reality & Virtual Reality Exhibition. Grand Challenges Showcase for College of Engineering Outreach. N=20.0
2. **Seals, C.D., Hardaway, T. & Seals, X. Y.** (July 2018). Computer Science Stars Camp 2018. Computer Programming and computational thinking for recruiting and tech workforce development.

N=30.Lovelace, C., Qin, X., & **Seals, C.D.**
(February2018). EDay Gaming Exhibition. Computer Gaming exhibitions for recruiting at Auburn EDay.

3. **Seals, C.D.** (October 2017). AJHS E-Day Gaming Exhibition. Computer Gaming exhibitions for recruiting at Auburn Junior High School E-Day.
4. Qin, X., **Seals, C.D.** (February 2017). EDay Gaming Exhibition. Computer Gaming exhibitions for recruiting at Auburn EDay.
5. **Seals, C.D.**, (October 2016). AJHS E-Day Gaming Exhibition. Computer Gaming exhibitions for recruiting at Auburn Junior High School E-Day.
6. **Seals, C.D.**, (March 2016). Gunther Air Force Day – Bring your children to work – why engineering & Computer Gaming exhibitions for recruiting at Gunther Air Force Base (Audience K-12).
7. **Seals, C.D.**, Qin, X. (February 2016). EDay Gaming Exhibition. Computer Gaming exhibitions for recruiting at Auburn EDay.
8. **Seals, C.D.**, (October 2015). AJHS E-Day Gaming Exhibition. Computer Gaming exhibitions for recruiting at Auburn Junior High School E-Day.
9. **Seals, C.D.,** Qin, X. (February 2015). EDay Gaming Exhibition. Computer Gaming exhibitions for recruiting at Auburn EDay.
10. **Seals, C.D.**, (October 2014). Drake Middle School E-Day Gaming Exhibition. Computer Gaming exhibitions for recruiting at Drake Middle School E-Day.
11. **Seals, C.D.**, (November 2014). Wrights Mill Road Elementary School E-Day, Why Engineering & Computer Gaming exhibitions for professional day at WMR Elementary School Professional Day.
12. **Seals, C.D.**, Qin, X. (February 2012-2014). EDay Gaming Exhibition. Computer Gaming exhibitions for recruiting at Auburn EDay 2012, 2013 & 2014.
13. **Seals, C.D.**, (October 2013). Drake Middle School E-Day Gaming Exhibition. Computer Gaming exhibitions for recruiting at Drake Middle School E-Day.
14. **Seals, C.D.**, Biaz, S. (February 201-2014). EDay Gaming Exhibition. Computer Gaming exhibitions for recruiting at Auburn EDay 2011, 2012.
15. **Seals, C.D.** (February 2009). EDay Gaming Exhibition. Computer Gaming exhibitions for recruiting at Auburn EDay 2009.
16. **Seals, C.D.**, Chapman, R., Carlisle, W.H., & Gilbert, J.E. (May, 2008). Alice EDay Exhibition. Local Alice computer camp winners exhibited their works at Auburn EDay 2008.
17. **Seals, C. D.** & Lindsey, R. (March, 2008). ACMSE Digital Animation Festival. Top 8 students from our area computer camps presented their Digital animations in Alice 3D at ACMSE Poster Session.
18. **Seals, C. D.** & Lindsey, R. (Feb, 2008). Alice Film Festival Competition. We brought the top 10 students from our area computer camps to UAB for the Alice film festival and won 4 of the top 7 places in our category.
19. **Seals, C.D.**, Chapman, R., & Gilbert, J.E. (2007). Alice EDay Exhibition. Local Alice computer camp students exhibited their works at Auburn EDay 2007.

Honors and Awards

1. The Social Humanitarian Award presented by The National Society of Black Engineers – March 2017
2. Leadership in Faculty Award; 100 Women Strong, April 2016
3. Invitation – Organize & Lead Session National Academy of Science Computing Research, June 2015
4. Invitation to Present - National Academy of Science Computing AI Research, June 2014
5. Featured Researcher (2009). Research Initiative for the Study of Diversity at Auburn University February 2009. https://fp.auburn.edu/researchdiversity/CherylSeals.aspx

6. Invitation National Academy of Science to share candidates research, October 2005
7. User Interface Design Class Placed as 2nd Runner-up, National Competition, Fall 2004, Addison Wesley Designing the User Interface 2004
8. Upsilon Pi Epsilon, Computer Science Honor Society
9. Virginia Commonwealth and Kellogg Fellowships
10. Kappa Delta Pi, Education Honor Society
11. Concert Mistress, Grambling Laboratory Orchestra
12. Academic Merit, T.H. Harris, and Orchestra Scholarships

EXPERIENCE

Associate Professor Computer Science
Auburn University, Auburn Alabama
2010-present
Areas of research: Human Centered Computing, Game Design, Mobile Applications, User Interface Design, Cloud Computing

Acting Director – Alabama Power Academic Excellence Program
Auburn University, Auburn Alabama
May 2014 - Jan 2016
Administrative: Student Support & Development, University Fundraising & Fund Portfolio Development

Assistant Professor Computer Science
Auburn University, Auburn Alabama
2004-2010
Areas of research: Human Computer Interaction, Intelligent and Interactive Systems, User Interface Design, OOA&D, Software Design, Development, Verification & Validation.

Instructor Computer Science
Auburn University, Auburn Alabama
2003-2004
Areas of Teaching: Human Computer Interaction, Artificial Intelligence and Intelligent and Interactive Systems,

Graduate Research Assistant (Usability Engineer)
Virginia Tech, Blacksburg, VA
1995-2003
Software/Usability Engineering of visual programming environment to support novice programmer development of educational simulations (2000-present). Usability Analysis of MyInBox Voice e-mail System (1999). Usability Analysis of Digital Libraries (1997-1999), Usability Analysis of Visual Programming Environments (1998-present). Usability Analysis of Scenario Based Tools for Learning Object-Oriented Design (1997).

Graduate Teaching Assistant: CS1004/1104 Computer Literacy
Virginia Tech, Blacksburg, VA
1/2000 – 1/2001
Graduate Teaching Assistant: Aided in Preparation of exams, management of online testing system, and lab assistant.

Computer Literacy and Programming Instructor
Upward Bound Summer Program, Blacksburg, VA
1997-present
Instructor: Prepared lecture, assignments, exams and delivered computer literacy and programming instruction to Upward Bound High School Summer Students. Topics covered: MS Office proficiency, programming concepts and Web page design and programming.

Graduate Teaching Assistant: CS1044 Introduction to Programming in C
Virginia Tech, Blacksburg, VA
8/95-present
Graded programs in C. Lab monitor and aided students in learning programming concepts.

Application Integrator
IBM (Integrated Services and Solutions Corporation), Atlanta, GA
1995 Health Industry Commercial Contracts - Created proposals and prototypes for health industry contracts as Object Oriented advisor. Developer/tester of Health industry interfaces.

Summer Intern
Polaroid Corporation, Boston, MA
6/94-8/94
Film Imaging Research and Development - Developed a data acquisition application for the Hunter Colorimeter using C Programming and Sapiens SmartStar (Booch, Yourdon, and Fusion Methods)

Database Administrator/System Tester
Bell Communications Research, Piscataway, NJ
1990 - 1992
Member Technical Staff

- Coordinated, executed, and documented the transition of databases from a UNIX to an IBM MVS/IMS environment.
- Increases the efficiency of Product Test Group by saving versions of test scenarios with an automated testing facility.
- Tested UIs, developed automated regression test package to maximize quality and scope of Testing.

Consulting (N=23)

1. Spring 2017 – present, Advanced Learning Technologies with VCOM physician assistive technology Dr. White & Dr. Nordehn.
2. Fall 2016-present, Advanced Learning Technologies with Communications & Linguistics Auburn (Dr. Speights & Dr. Bailey). Team development of linguistics teaching tool.
3. Fall 2016-present, Logan Project with AUM, Math for the students with low/no visual acuity.
4. 2015-Present Supporting Industrial &Systems Engineering in Advanced Learning Technology for ISE Dr. Sesek, Dr. Thomas & Dr. Schall
5. 2014-Present Supporting Teacher Education in Advanced learning Technology for Classroom Management, Dr. Tripp (Spectrum Education).
6. 2010-present Extension and Tony Cook, For Youth For Life supporting youth learning of science.
7. 2007-2010, NSF Grant Consultant for Culturally Situated Design Tools with Rensselaer Polytechnic Institute
8. 2007, Consultant to Danya International Inc. (NIH Grant Writing)
9. 2007, Consultant to REMTECH, Inc. contact Gene Fuller (Industrial Advisory Board) and grant collaboration NSF ITEST/NSF ROLE
10. 2007, User Interface Design to Mt. Olive Missionary Baptist Church
11. 2007, User Interface Design Consultant to Information Lab
12. 2007, User Interface Design Consultant to Auburn Korean Church
13. Fall 2006, Southern Polytechnic State University, LSAMP Program
14. 2006, Consultant to REMTECH, Inc. contact Gene Fuller (Industrial Advisory Board) and grant collaboration
15. 2006, Consultant to Danya International Inc. (Usability Testing)
16. 2006, Consultant to t.e.a.c.h., inc. and grant collaboration
17. Fall 2005, User Interface Design Consultant to Impact Center
18. Fall 2005, Consultant to REMTECH, Inc. contact Gene Fuller (IAB)
19. Fall 2005, Achievement Center Consultant in Web Redesign

20. Fall 2005, Fitness Solutions Consultant in Web Redesign
21. 2005 Consultant to Prophecy 3D, LLC
22. Fall 2004, Socaz Painting Consultant in Web Redesign
23. 2004, Consultant to Prophecy 3D, LLC

PROFESSIONAL DEVELOPMENT ACTIVITIES (N=33)

1. Hybrid Course (Re)Design Workshop, June 2018
2. Reviewer – Journal of Artificial Intelligence 2012-2015
3. Women of Color in STEM 2010-2015
4. Reviewer November 2009-2015, Poster & Paper Reviewer Tapia Conference
5. Reviewer SIGCSE Conference 2009, 2010, 2014
6. Reviewer - NSF Proposal Review Panels 2009-2015
7. Mar 2008, Session Chair ACMSE
8. Feb 2008, Reviewer ACMSE Papers
9. Jan 2008, Reviewer EISTA Conference 2008
10. Oct 2007, Judge Student Posters Grace Hopper Conference 2007
11. Summer 2007, Served on 2 NSF Proposal Panels
12. Mar 2007, Judge –Alabama ALSAMP Scholars/BD Conference 2007
13. Feb 2007, Judge – Computer Science Olympiad - Programming Contest
14. 2007-2008, Sisters of the Academy Executive Committee
15. Dec 2006, Judge –South's BEST Robotics Competition 2006
16. Oct 2006, Grace Hopper Conference 2006 Student Posters Co-Chair
17. Summer 2006, Served on 2 NSF Proposal Panels
18. Mar 2006, Judge –Alabama ALSAMP Scholars/BD Conference 2006
19. Oct 2005, AU SWE Chapter National conference chaperone
20. Summer 2005, Served on 2 NSF Proposal Panels
21. Feb 2005, Judge –Alabama ALSAMP Scholars/BD Conference 2005
22. Feb 2004, Judge –Alabama ALSAMP Scholars/BD Conference 2004
23. Oct 2004, Judge –South's BEST Robotics Competition 2004
24. Feb 2003, Judge -Undergraduate Science and Engineering Conference 2003
25. Feb 2002, Judge -Undergraduate Science and Engineering Conference 2002
26. ACM International Student Poster Competition - Reviewer - February, 2001, 2002
27. AWC (Assoc. for Women in Computing) Panel on Academic Careers - Panel Member - February, 2002 Member AWC "Association for Women in Computing" - Presentation at Girl's Day 2000, 2001, 2002.
28. Computer Science Graduate Student Expo - Panel Member - October, 2001
29. Officer Computer Science Graduate Council 3 years, Treasurer, Social Chair, Member of Dept. Computer Resources Consortium, Member of Dept. Recognition and Awards Committee.
30. Secretary - Delta Sigma Theta Sorority, Inc. Blacksburg Alumnae Chapter
31. Secretary - Virginia Tech BGSO "Black Graduate Student Organization"
32. President, Eta Zeta Chapter Sigma Alpha Iota International Music Fraternity (Grambling State)
33. Drill Sergeant, Section Leader, Grambling Tiger Marching Band (Grambling State)

Service

Professional Service (N=37)

1. Sept 2014-present, Board of Advisors, North Carolina A&T State University, Computer Science Dept., Greensboro, NC, USA

2. 2013-2015 SIGCSE Program Committee, SIGCSE Kids Camps
3. 2013-2015 CRA-W/CDC Distinguished Lecturer Series, Co-Director.
4. 2012-2013 STARS Celebration of Computing, Program Chair for Celebration 2013.
5. 2011-Present. Auburn Gamers Group, Academic Advisor.
6. August 2009-Present. Society of Women Engineer's Auburn University, Academic Advisor.
7. February 2009-Present. Tapia Celebration of Diversity in Computing, Poster Judging.
8. Oct 2011-Present, Reviewer, Conference Paper, ASEE Regional Conference, USA
9. May 2009-present, Board of Advisors of a Company, Mississippi State University Computer Science Dept., Starkville, Mississippi, USA
10. May 2008-Present, Board of Advisors of a Company, Alabama Power Student Success Program, Auburn, Alabama, USA
11. May 2008-2012, Board of Advisors, Jackson State University Computer Science, Jackson, MS, USA
12. April 2008 - Present, Invited Lecture, ADMI/A4RC Conference admiusa.org
13. Jan 2008 - 2011, Editor, Associate Editor, Engineering Pathways: Broadening Participation in Computing Collection, USA
14. 2008-2010, Sisters of the Academy Executive Committee
15. 2008-2009 Richard Tapia Conference of Diversity in Computing Committee
16. 2008-2009 SIGCSE 2009 Conference Committee, Posters.
17. July 2008 - Present, Served NSF Proposal Panel (2-4 grant reviews per year)
18. Mar 2008, Session Chair ACMSE
19. Feb 2008, Reviewer ACMSE Papers
20. Jan 2008, Reviewer EISTA Conference 2008
21. Oct 2007, Judge Student Posters Grace Hopper Conference 2007
22. Summer 2007, Served on 2 NSF Proposal Panels
23. Mar 2007, Judge –Alabama ALSAMP Scholars/BD Conference 2007
24. Feb 2007, Judge – Computer Science Olympiad - Programming Contest
25. 2007-2008, Sisters of the Academy Executive Committee
26. Dec 2006, Judge –South's BEST Robotics Competition 2006
27. Oct 2006, Grace Hopper Conference 2006 Student Posters Co-Chair
28. Summer 2006, Served on 2 NSF Proposal Panels
29. Mar 2006, Judge –Alabama ALSAMP Scholars/BD Conference 2006
30. Oct 2005, AU SWE Chapter National conference chaperone
31. Summer 2005, Served on 2 NSF Proposal Panels
32. Feb 2005, Judge –Alabama ALSAMP Scholars/BD Conference 2005
33. Feb 2004, Judge –Alabama ALSAMP Scholars/BD Conference 2004
34. Oct 2004, Judge –South's BEST Robotics Competition 2004
35. Feb 2003, Judge -Undergraduate Science and Engineering Conference 2003
36. 2003- present Society of Women Engineers
37. Feb 2002, Judge -Undergraduate Science and Engineering Conference 2002

University Service

2018 ***Committee Member*****,** 2018
Central Classroom Committee2 - Labs
Approx. Number of Hours Spent Per Year: 4

Committee Member, AY2017-2018
Competitive Outreach Scholarship Grant Committee
Approx. Number of Hours Spent Per Year: 32

2017 ***Search Committee***, Assistant Provost for Women's Initiatives
Committee Member, April – June 2017
Approx. Number of Hours Spent: 16

Committee Member, 2017
Central Classroom Committee2 - Labs
Approx. Number of Hours Spent Per Year: 4

2016 ***Committee Member***, AY2016-2017
Competitive Outreach Scholarship Grant Committee
Approx. Number of Hours Spent Per Year: 16

2015 ***Committee Member***, AY2015-2016
Competitive Outreach Scholarship Grant Committee
Approx. Number of Hours Spent Per Year: 16

Committee Member, AY2015-2016
Competitive Outreach Scholarship Grant Committee
Approx. Number of Hours Spent Per Year: 16

2014 ***Committee Member***, 2014-2015
Competitive Outreach Scholarship Grant Committee
Approx. Number of Hours Spent Per Year: 16

Committee Member, November 2014- Feb 2015
Competitive Outreach Scholarship Grant Committee
Approx. Number of Hours Spent Per Year: 16

2013 ***Committee Member***, November 2013- February 2014
Central Classroom Committee
Approx. Number of Hours Spent Per Year: 16

Committee Member, November 2013- February 2014
Competitive Outreach Scholarship Grant Committee
Approx. Number of Hours Spent Per Year: 16

Committee Member, November 2013- February 2014
Central Classroom Committee
Approx. Number of Hours Spent Per Year: 16

2012 ***Committee Member***, November 2012- February 2013
Competitive Outreach Scholarship Grant Committee
Approx. Number of Hours Spent Per Year: 16

Committee Member
Classroom Facility Committee
Approx. Number of Hours Spent Per Year: 20

2011 ***Committee Member***, November 2011
Competitive Outreach Scholarship Grant Committee
Approx. Number of Hours Spent Per Year: 16

Committee Member
Classroom Facility Committee
Approx. Number of Hours Spent Per Year: 20

1/2009-12/2012 ***Committee Member***
Graduation Committee
Approx. Number of Hours Spent Per Year: 24

College of Engineering Service

2017 ***Search Committee***, Engineering Outreach Coordinator
Committee Member, June – Aug. 2017Approx. Hours Spent: 24

2015 ***Search Committee***, AEP Engineering Outreach Coordinator
Committee Member, January – April 2015
Approx. Number of Hours Spent: 24

Committee Member, AY2015-2016
College Curriculum Committee
Approx. Number of Hours Spent Per Year: 2

August 2014-Present
- SGCOE Faculty Research Colloquium

Oct 2011-April 2011
- Dean Search Committee

2009-Present
- ***E-Day 2009-2012*** *Committee to coordinate demonstrations/exhibits*
- ***Faculty Council for NSF STEM*** (Scholarships for Engineering Students from Underrepresented Groups)
- ***SWE Advisor*** **2006-Present** Society of Women Engineers

Department Service

2009-Present

- Committee Member, CSSE Faculty Search Committee
- ***E-Day Committee coordinate exhibits based on Auburn City Schools outreach project.***

2008-Present

- ***Faculty Search Committee***
- ***E-Day Committee coordinate exhibits based on Auburn City Schools outreach project.***
- Computer Science Recruiting

STARS conference, Spelman College, ADMI conference, FAMU, North Carolina A&T, Georgia Southern, and Tuskegee University

College of Engineering Service
E-Day 2008 - Present

University Service
NASA Space Grant Scholarship Selection Committee
University Graduation Committee

National Service

1. *Association for Computing Machinery Special Interest Group for Computer Science Education (SIGCSE 2014, SIGCSE 2015)*
2. *Program Committee Association for Computing Machinery (ACMSE 2008) Program Committee*
3. *STARS Conference Student Leadership Conference (Executive Steering Committee and Conference Chair 2013.*
4. *Richard Tapia Celebration of Diversity in Computing* Program Committee
5. Special Interest Group in Computer Science Education Program Committee (SIGCSE 2009)
6. SOTA executive committee with headquarters at Auburn University. SOTA (Sistersoftheacademy.org) is a Mentoring Network for minority women in the academy. SOTA activities include the following:

- *Research Boot Camp Committee (July2009)*
- *Website operations coordinator*

2007-2008 *Department Service*

1. *EDay Committee coordinated exhibits based on Auburn City Schools outreach project.*
2. WISE (Women in Science and Engineering)
3. *Exploratory Meetings for Women in Computing Network Organization, Initial Web Design (ACM-W)*
4. Computer Science Recruiting: *ADMI conference, Spelman College, FAMU, North Carolina A&T, and Tuskegee University*

College of Engineering Service
E-Day 2008

University Service
1. NASA Space Grant Scholarship Selection Committee
Application to Wellness Committee
2. University Graduation Committee

National Service
1. Association for Computing Machinery (ACMSE 2008)
Program Committee
2. Richard Tapia Celebration of Diversity in Computing
Program Committee
3. Special Interest Group in Computer Science Education
Program Committee (SIGCSE 2009)
4. SOTA executive committee with headquarters at Auburn University. SOTA (Sistersoftheacademy.org) is a Mentoring Network for minority women in the academy. SOTA activities include the following:
1. Research Boot Camp Committee (July2007)
2. Research Symposium Committee (Nov 2007-April 2008)
3. Website operations coordinator

2006-2007 *Department Service*
E-Day Committee coordinated exhibits based on Cary Woods elementary school outreach project.

WISE (Women in Science and Engineering)
Exploratory Meetings for Women in Computing Network Organization, Initial Web Design (ACM-W)

Computer Science Recruiting at ADMI conference, Spelman College and FAMU

College of Engineering Service
E-Day 2007

University Service
NASA Space Grant Scholarship Selection Committee

National Service
1. Grace Hopper Conference (GHC 2006) Program Committee
2. SOTA executive committee. SOTA activities for 2006 include the following:
a. Research Boot Camp Committee (July2007)
b. Research Symposium Committee (Nov 2007)
c. Website operations coordinator

2005-2006 *Department Service*
E-Day Committee
WISE (Women in Science and Engineering)
Exploratory Meetings for Women in Computing Network Organization, Initial Web Design (ACM-W)

College of Engineering Service
SWE Chapter chaperone with local SWE Chapter at National Conference

University Service
Women's Resource Center Advisory Committee

National Service
SOTA executive committee (headquarters at Auburn University)
1. Mentoring and support network for minority women in the academy
2. Duties assist with planning of National meeting in May at Auburn
3. Finance and Resource Development officer
4. Research Boot Camp Committee (July2005)
5. Website operations coordinator

2004-2005 *Department Service*
E-Day Committee
Exploratory Meetings for Women in Computing Network Organization
University Service
SOTA executive committee (headquarters at Auburn University)
1. Mentoring and support network for minority women in the academy
2. Duties assist with planning of National meeting in May at Auburn
3. Membership officer

2003-2004 *Department Service*
E-Day Committee 2003

Doctoral Graduates (Major Professor)

Graduate Student	**Graduation Date**	**Position**
1. Fred Strickland,	May 2008,	Instructor, Southern University
2. Sheldon Linker,	May 2012,	VP/CTO Linker Systems (Comp. Software)
3. Justus Nyagwencha,	May 2013,	Assistant Professor, Hampton University
4. Albanie Bolton,	May 2014	Data Analysis & Systems Engineer, NASA Marshall Space Flight Center; Adjunct Professor, Alabama A&M University
5. Cheryl Swanier,	December 2015,	CS Department Head, Claflin University
CS Associate Professor (previous)		Fort Valley State University
6. Candice Harris Adams,	May 2017,	Center for Disease Control – Atlanta
7. Cathy Bailey,	May 2017,	Center for Disease Control – Atlanta
8. Xuechao Li,	May 201 7	Spring 2017, Concordia College – Chicago
Instructor, Auburn University		

Master's Student Alumni – Major Professor **(65 Master's Students)**

*(Note. **MSCS in bold indicates Master's Thesis.** N=27 MS Theses; N=38 MS Non-Thesis and 10 continued education to Ph.D. (A indicates Academic profession; 8 pursued at Auburn and 2 at other institutions)*

1. Sumitha Kanakadoss **MS**, Summer 2005
   Lead Programmer Analyst, Follett Higher Education Group
2. Dr. Kyuhan Koh[A], **MSCS** Summer 2007
   University of California, Assistant Professor
   Virginia Tech, Post - Doc Researcher
   UC Boulder Colorado for PhD
3. Thomas Whittaker **MS**, Fall 2007
   TSYS (Software Development), Columbus, Georgia
4. Kelley Clanton, **MS** Fall 2008
   IT Specialist, Auburn University
5. Feng Wu **MS**, Spring 2009
   EPIC, Software Developer, Madison, Wisconsin
6. Manasa Nimmimkayala Reddy **MS**, Spring 2009
   Infor, Software Engineer, Atlanta, Georgia
7. Nidhi Gupta MS, Spring 2010
   Apple, Software Engineering Author, Cupertino
8. Albanie Bolton[A] **MSCS**, Spring 2010, (***retained as Ph.D. Student***)
   NASA Marshall Flight Center, Huntsville, Alabama
   Alabama A&M State University, Adjunct Professor
9. Curtis Cain[A] **MS**, Summer 2010
   Howard University, Assistant Professor,
   Penn State for PhD
10. Kevin Simmons[A] **MS**, Summer 2010
    The University of Alabama in Huntsville, Research Scientist II
11. Vasavi Chilamantula **MS**, Fall 2010
    Intel Corporation, Software Engineer
12. Abilash Kittanna **MSCS**, Spring 2010

CGI, Software Consultant, Auburn, Alabama

13. Rahul Potghan **MS**, Summer 2011
    Alert Logic, Product Manager | UX | Platform Service
14. Candice Adams **MSCS**, Spring 2011
    Center for Disease Control – Atlanta
15. Ram Bharat Reddy Bontha, Summer 2011
    Data Quality Lead/Informatica Developer at Smith & Nephew Orthopaedics
    Saram Solutions, Inc. – previous position, SR SAP BODS Consultant/ Data Migration
16. Rajashekar Erri **MS**, Spring 2011
    VMware/Windows Administrator at Novisync Solutions*
17. Stanley Hailey **MS**, Fall 2011
    Software Developer, Atlanta Georgia
18. Sonali Pandey MSWE, Spring 2012
    The Weather Channel – Weather Underground,
    Mobile Software Developer - Backend
19. Rajitha Gondi **MS**, Summer 2012
    Infogroup, .Net Full-Stack Developer
20. Sreevishal Chapalamadugu MS, Fall 2012
    Intel, Software Engineer
21. Marlon Thompson, Fall 2012
    Missile Defense Agency, General Engineer, Huntsville, AL
22. Leretha Childress[A], **MS**, 2013
    ITT, Software Development Instructor
    Plant Manager, Shankles Finishing Plant
23. Vijith Reddy Bheemireddi, 2013
    Perficient, Senior Technical Consultant
    Cloudera, Technical Account Manager/ Customer Success Manager
24. Sruthi Yalamanchili, MS 2013
    Eze Software Group
25. Adam Paul, Fall 2014
    Acuity Brands, Software Developer
26. Andrew Pitchford, 2014
    Metova, iOS Software Engineer
27. Donald Hutchinson 2014
    Regions Financial Corporation, AVP Automation Testing Manager
28. Jared Alewine **MS**, Summer 2014;
    Michelin, Program Analyst
29. Chunyu Li (Chunyi Wyeth), Summer 2014;
    Amadeus, UX Designer, Boston, MA
30. Santosh Nagaral, MS, Fall 2014
    Intel Corporation, Software Engineer
31. Nayana Teja Talluri MSWE, Spring 2015;
    Deloitte & Touche LLP, ERS Consultant, now Senior Advisory Consultant
32. Rohit Pendayala MSWE, Spring 2015;
    Intel Corporation, Software Engineer
33. Sarthak Kakkar **MS**, Summer 2015;

Mount Sinai Health System, Mobile Application Developer
34. Kartheek Paidipalli MSWE, Fall2015
    Cognizant Technology Solutions, Programmer Analyst
35. Jeff Brown, MSWE, Apple Spring 2016, Apple, iOS developer
36. Sarath Kuchi, MSWE, Spring 2016, Equifax
37. Qian Zhang, MSWE, Fall 2016; F5, Networks, Seattle
38. Chungzhang, Mo, MSWE, Fall 2016; Amazon, Seattle
39. Akshara Amuri, MSWE, Spring 2017; Software Development in India
40. Jesse Gamez, MSWE, Fall 2017; Northrup Grumman, Huntsville, AL
41. Sai Siddhartha Vungarala, MSWE, Fall 2017; Software developer, Birmingham
42. Wei Cai, MSWE, Fall 2017 (working on Auburn MBA)
43. Anjali Singh, MSWE, Fall 2017
    Version3, UI Software Developer, Montgomery, AL
44. Sonali Rege, MSWE, Fall 2017
45. Nandakrishnan Ramesh, **MSCS**, Fall 2017; Blue Cross Blue Shield, Birmingham
46. Bala Nandakumar Ravilla, **MSCS**, Fall 2017;
    Bomgar (Secure Access Solutions) - Software Developer, Jackson, MS
47. Akolade Issac Asipade, MSWE, Fall 2017 (***retained as Ph.D. Student***)
48. Yang Cao, MSWE, Fall 2017 (***retained as Ph.D. Student***)
49. Arivunambi Thirugnanamurthy, Fall 2017; Salesforce, Birmingham
50. Amjad Alobaily, Spring 2018; **MSCS**, National Information Center,
    Manager of Continuity and Availability processes, Saudi Arabia
51. Ananya Rao Tadakamalla, Spring 2018; Mueller Water Products, Atlanta
52. Guorui Li, **MSCS**, Spring 2018; Tact.ai, Android Developer, California
53. Kushagar Ahlawat, Spring 2018
54. Mohammad Ali Alamdar Yazdi[A] **MSCS**, Spring 2018 **(*PhD ISE, Summer 2018*)**
55. Onyinye Asogwa, **MSCS**, Spring 2018; ***(retained as Ph.D. Student)***
56. Qitong Zhang, **MSCS**, Spring 2018
57. Sai Venkat Gopu, MSWE, Spring 2018 (working on Auburn MBA)
58. Vinod Channigarayapuragovindareddy, MSWE, Spring 2018
59. Yingzhi Yang, MSWE, Spring 2018
60. Sicheng Li, MSWE, Summer 2018; (***retained as Ph.D. Student***)
61. Surabh Gupta, MSWE, Summer 2018; United Healthcare, Washington, D.C.
62. Swati Gupta, MSWE, Summer 2018;
    Version3, Lead Software Developer, Montgomery, AL
63. Chang Ren MSWE, Summer 2018, (***retained as Ph.D. Student***)
64. Muzi Li, MSWE, Summer 2018
65. Boning Liang, MSWE, Summer 2018

Doctoral Student Supervising (Major Professor) **N=11**

1. Yang Cao (with plan to be ABD by end of fall 2018)
2. Robertson Bassy (with plan to be ABD by end of fall 2018)
3. Ujan Mukopadhya (co-Advised with Dr. Tony Skjellum, plan to be ABD by end of fall 2018)
4. Akolade Asipade (with plan to be ABD by end of fall 2018)
5. Jueting Li
6. Onyinye Asogwa, (New Ph.D. just completed MS)

7. Sicheng Li (New Ph.D. just completed MS)
8. Chang Ren (New Ph.D. just completed MS)
9. Nikolay Sargsyan (New Ph.D.)
10. Gabrielle Taylor (New Ph.D.)
11. Majdi lusta (New Ph.D.)

MS Students Supervising (Major Professor) N=6

1. Matthew Landrum (anticipated Fall 2018, accepted for Ph.D.)
2. Chaohui Ren (anticipated MS Fall 2018, accepted for Ph.D.)
3. Sathish Akula, (anticipated Spring MSWE 2019)
4. Vijoy Varghese, (anticipated Fall 2018)
5. Vishvaa Triveda, (anticipated Fall 2018)
6. Xin Wei, (anticipated Fall 2018)

Undergraduate Student Research & Supervision Fall/Spring (N=38)

Fall 2018 (* indicates research, + indicates Honors project)

1. Elijah Hampton*
2. Shanni Patel*
3. Kareith Dyce*

Spring 2018 (* indicates research, + indicates Honors project)

1. Amy Cheng*
2. Shanni Patel*
3. Elijah Hampton*
4. Ebbrea Wilson *
5. +Jessica Knezha, B.S. CS Honors Project Supervisor (Game Development)
6. +Carmen Stowe, B.S. CS Honors Project Supervisor (Game Development)
7. +Alexis Taylor, B.S. CS Honors Project Supervisor (Game Development)

Fall 2017

8. Morgan Hood
9. Jerron Spraggins

Spring 2017

10. Fara Fadamiro
11. Morgan Hood

Fall 2016

12. Jesse Gamez
13. Christopher Strong

Spring 2016

14. Jonathan Sims
15. Marvin Royal
16. Morgan Hood
17. Victor Jones

Spring 2015

18. Angela Steward B.S. CS Honors Project Supervisor (Senior Design) - Spring 2016
19. Donovan Jordan B.S. CS Spring 2015
20. Jesse Gamez B.S. CS Fall 2015
21. Jacob Scott – STARS Tutoring Outreach Supervisor

22. Kenneth Strait - STARS Tutoring Outreach Supervisor
23. John Cook - STARS Tutoring Outreach Supervisor

Fall 2014

24. Adam Coleman – Undergraduate Research
25. Jesse Games – Undergraduate Research
    Jesus Gamez – STARS Tutoring Outreach Supervisor
26. Heather Neely – STARS Tutoring Outreach Supervisor
27. Taylor Lucy – STARS Tutoring Outreach Supervisor
28. Luke Aaron Williamson - STARS Tutoring Outreach Supervisor
29. Christopher S. Strong – STARS Tutoring Outreach Supervisor
30. James Cox – STARS Tutoring Outreach Supervisor
31. John Cook - STARS Tutoring Outreach Supervisor
32. Tarence Beard, Jr.- STARS Tutoring Outreach Supervisor
33. Jacob Scott - STARS Tutoring Outreach Supervisor
34. Kenneth Strait - STARS Tutoring Outreach Supervisor

Spring 2013

35. Jacob Conoway B.S. CS Honors Project Supervisor

Summer REU (average time supervised 10 weeks) N=36

1. Arian Williams, Summer 2018, B.S. CS, (anticipated May 2020)
2. Koran Wright, Summer 2018, B.S. CS, (anticipated May 2020)
3. Jerrion Joy, Summer 2018, B.S. CS, (2nd REU at AU (anticipated Dec 2019)
4. Phoebe Burns, Summer 2017, B.S. CS, (anticipated May 2019)
5. Jerrion Joy, Summer 2017, B.S. CS, (anticipated May 2019)
6. Sam Turray, Summer 2017, B.S. IDSC, (Fall 2017)
7. Tino Monroe, Summer 2017, B.S. ECE, Fall 2017)
8. Morgan Hood, Summer 2017, B.S. CS, Fall 2017)
9. Cameron Walker, Summer 2017, B.S. CS, Summer 2017)
10. Steven Mitchell, Summer 2017, B.S. CS, (anticipated May 2020)
11. Amber Jackson, Summer 2016. B.S. CS, (anticipated 2019)
12. Edward Ojo, Summer 2016, B.S. CS, (anticipated 2019)
13. Marvin Royal, Summer 2016, B.S. CS, (anticipated 2019)
14. Devon White, Summer 2016, B.S. CS, (anticipated Dec 2018)
15. Gwendolyn Tennell, Summer ’15, B.S. CS, (Fall 2017)
16. Grant Pope, Summer ’15, B.S. CS. (anticipated Dec 2018)
17. Andre McFarland, Summer ’14, B.S. CS. Spring 2015
18. Cecili Reid, Summer ‘13, B.S. CS. Spring 2014
19. Jonathan Ray Johnson, Summer ‘13, B.S. CS. Spring 2014
20. Lacey Wright, AUREU Summer ’13, CS. Spring 2014
21. Elizabeth Devore, Summer ’13, B.S. ISE. Spring 2014
22. Otelia Buffington, Summer ‘12 CS. Spring 2013
23. Kiara Coston, Summer ‘12, B.S. CS. Fall 2014
24. Ashley Cagle, Summer '10, B.S. Math, Spring 2011
25. Edward Hull, Summer '10, B.S. CS, Spring 2012
26. Navorro Houser, Summer '10, B.S. CS, Fall 2010

27. Jared Thorpe,	Summer '10, B.S. CS, Spring 2011
28. Joi Upton,	Summer '10, B.S. CS, Spring 2012
29. Marlana Carrington,	Summer '09, B.S. Math, Spring 2010
30. Britni Marcelin,	Summer '09, B.S. Math, Spring 2011
31. Junes Thete,	Summer '09, B.S.CS, Spring 2010
32. Joe Shanahan,	Summer '09, B.S. CS, Spring 2010
33. James Bedenbaugh,	Summer '08, B.S. CS, Spring 2010
34. Shantavious Williams,	Summer ’06, B.S. CS, Spring 2007
35. Chittra Tibbs,	Summer ’05, B.S. CS, Spring 2006
36. Brandi Smith,	Summer ’04, B.S. CS, Spring 2005