

# James Woodson McGuffee

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## Education

- Ph.D. Louisiana State University and A&M College, Baton Rouge, Louisiana.  
Major - Computer Science, Minor - Speech Communication, August 1994.
- B.S. Louisiana Tech University, Ruston, Louisiana.  
Major - Computer Science, May 1989.

## Full-Time Work Experience

- Dean, School of Sciences and Professor of Mathematics & Computer Science,  
Christian Brothers University, Memphis, Tennessee, July 2016 – present.
- Chair and Associate Professor of Computer Science,  
Northern Kentucky University, Highland Heights, Kentucky, July 2013 – June 2016.
- Associate Professor of Computer Science,  
St. Edward's University, Austin, Texas, August 2004 to May 2013.
- Assistant Professor of Computer Science,  
St. Edward's University, Austin, Texas, August 2000 to July 2004.
- Associate Professor of Computer Science and Computer Information Technology,  
Austin Community College, Austin, Texas, August 1995 to July 2000.  
Served as Assistant Dean of Advanced Technology, August 1997 to July 2000.
- Assistant Professor of Computer Science,  
Louisiana State University at Alexandria, August 1994 to May 1995.

## Other Work Experience

- Adjunct Instructor of Computer Science, Huston-Tillotson University, Austin, Texas, August 1999 to December 1999. Taught CSC/CIS 353 Operating Systems.
- Computer Lab Administrator, Academic Center for Athletes,  
Louisiana State University and A&M College, Baton Rouge, Louisiana,  
January 1994 - May 1994.
- Graduate Teaching Assistant, Department of Computer Science,  
Louisiana State University and A&M College, Baton Rouge, Louisiana,  
August 1989 to July 1993.

## Peer-Reviewed Publications

- McGuffee, James. “Why Teach Operating Systems?”, *The Journal of Computing Sciences in Colleges*, Volume 35, Number 9, April 2020.
- McGuffee, James and Salan, Serge. “Engaging Constructivist Oriented Learners With Python”, *The Journal of Computing Sciences in Colleges*, Volume 33, Number 4, April 2018.
- Frank, Charles, McGuffee, James W, and Thomas, Cynthia. "Early Undergraduate Cybersecurity Research", *The Journal of Computing Sciences in Colleges*, Volume 32, Number 1, October 2016.
- McGuffee, James W., Palmer, E. Kent, and Guzman, Indira R. “Assessing the Tier-1 Core Learning Outcomes of CS2013”, *Proceedings of the 47th ACM Technical Symposium on Computing Science Education (SIGCSE '16)*. ACM, New York, NY, USA, 485-489.
- Myers, Daniel and McGuffee, James W. "Choosing Scrapy", *The Journal of Computing Sciences in Colleges*, Volume 31, Number 1, October 2015.
- Smith, Justin W. and McGuffee, James W. "Data and Content Management: A Master's Level Course", *The Journal of Computing Sciences in Colleges*, Volume 31, Number 1, October 2015.
- Sabin, M., Impagliazzo, J, Alrumaih, H., Byers, B., Gudoniene, D., Hamilton, M., Kotlyarov, V., Lunt, B., McGuffee, J., Pelsverger, S., Tang, C., Viola, B., and Zhang, M. “Multinational Perspectives on Information Technology from Academia and Industry”, *Proceedings of the 2015 ITiCSE on Working Group Reports (ITICSE-WGR '15)*. ACM, New York, NY, USA, 149-171.
- McGuffee, James W. and Hanebutte, Nadine “Google Hacking as a General Education Tool”, *The Journal of Computing Sciences in Colleges*, Volume 28, Number 4, April 2013.
- McGuffee, James W. , Bhagyavati, B. , Nandigam, Jagadeesh , and Schilling, Walter Jr. “The Security Assessment Teaching Case Module” , *The Journal of Computing Sciences in Colleges*, Volume 27, Number 4, April 2012.
- McGuffee, James W. “Programming Languages and the Biological Sciences”, *The Journal of Computing Sciences in Colleges*, Volume 22, Number 4, April 2007.
- McGuffee, James W. and Cabezas, R. Andrew “Starvation-Proof Priority Round-Robin Queues for Time-Sharing Systems”, *The Journal of Computing Sciences in Colleges*, Volume 21, Number 4, April 2006.
- McGuffee, James W. “Drama in the Computer Science Classroom”, *The Journal of Computing Sciences in Colleges*, Volume 19, Number 4, April 2004.
- McGuffee, James W. "The Discrete Mathematics Enhancement Project", *The Journal of Computing in Small Colleges*, Volume 17, Number 5, April 2002.
- McGuffee, James W. and Albright III, James A. "Computer Science Using an Interactive Video Classroom", *The Journal of Computing in Small Colleges*, Volume 15, Number 3, March 2000.

- McGuffee, James W. "The Question of Professional Certification", *The Journal of Computing in Small Colleges*, Volume 14, Number 3, March 1999.

### Editorial-Reviewed Publications

- McGuffee, James W. "Non-Profit Geographically Constrained Locator", *ACM SIGCAS Computers and Society (Newsletter)*, Volume 45, Issue 2, June 2015.
- McGuffee, James, Li, Qi, and Rubleske, Joe "A Transdisciplinarity Approach to an Undergraduate Degree in Data Science", *Big Data & Analytics EDCON 2014*, October 25, 2014.
- McGuffee, James W. "Defining Computer Science", *SIGCSE Bulletin -inroads*, Volume 32, Number 2, June 2000

### Selected Professional Presentations

- The ACM Technical Symposium on Computer Science Education (sponsored by SIGCSE), Workshop Presentation: "Transform Your Computer Science Course with Specifications Grading", co-presenting with D.L. Largent and C. Roberson. February 27, 2019.
- CCSC: Mid-South 2018 Conference, "Syllabus Transformation for Standards-Based and Specifications Grading in CS Courses", Tutorial Presentation, April 2018.
- CCSC: Mid-South 2017 Conference, "Data Science with Python", Tutorial co-presented with Serge Salan, April 1, 2017,
- SIGCSE 2015, "CS2013 Assessment Exam", Faculty Poster Presentation, (lead author: E. Kent Palmer), March 6, 2015.
- The 12<sup>th</sup> Annual CCSC: Mid-South Conference, "Writing Better Multiple Choice Questions in the Computing Sciences", Tutorial, April 4, 2014.
- ACM SIGCSE Technical Symposium on Computer Science Education, Session Moderator for a Panel Discussion on "Data Science as an Undergraduate Degree", March 8, 2014.
- The 21<sup>st</sup> Annual CCSC: South Central Conference, "Haskell and Scheme: A Hands On Comparison", Tutorial, April 23, 2010. Co-presenters: Holt Giesen, Melissa Lolley, and Andrew Plunk.
- The 20<sup>th</sup> Annual CCSC: South Central Conference, Moderator for a Panel Discussion on "Computer Science Education at Private Colleges and Universities", April 25, 2009.
- Lone Star Ruby Conference 2008, "Ruby in the Computer Science Classroom", Session Presentation, September 6, 2008.
- The 19<sup>th</sup> Annual CCSC: South Central Conference, "Try Ruby!", Tutorial, April 19, 2008. Co-presenters: Jay Blanco and Franz Wambach.
- The ACM Technical Symposium on Computer Science Education (sponsored by SIGCSE), Faculty Poster Presentation: "A Dramatic Assignment for the Computer Networks Class", February 21, 2003.
- The 13<sup>th</sup> Annual CCSC: South Central Conference, "Tools for Teaching Computer Ethics", Workshop Presenter, April 13, 2002.
- The ACM Technical Symposium on Computer Science Education (sponsored by SIGCSE), Session Moderator for a Panel Discussion on "Managing Undergraduate CS Research", March 2, 2002.
- The 7<sup>th</sup> Annual CCSC: South Central Conference, Moderator for a Panel Discussion on "Teaching Computer Science Classes via Distance Education", April 1996.

## Awards, Grants, and Fundraising

- As CBU Dean (2016-present), worked with the CBU office of Advancement to grow and enhance philanthropic giving for the School and the University.
- 2019, Supervising CBU Administrator for a grant from the Jay Uiberall Foundation to support Life Sciences mentoring for ninth grade students at the Memphis Academy of Health Sciences (MAHS).
- 2017-2018, Supervising CBU Administrator for a \$25,000 grant from the Jay Uiberall Foundation to create and fund the CBU Jay Uiberall STEAM Mentors program.
- ACM Senior Member, 2014. *The Senior Member Grade recognizes those ACM members who have demonstrated performance that sets them apart from their peers.*
- Co-Project Owner, ScaleFunder NKU Impact Fundraiser for the NKU Cyber Defense Team. This crowd-source fundraising project raised \$4,850 (107% of goal), March-May, 2015
- Faculty Project Director for an Undergraduate Research Council Award. This award of \$1000 was used to support the research of three NKU students: Aubrey Franzen, Catherine Schwegman, and Deborah Burgess, spring 2015.
- Recipient, \$1,000 NKU Faculty International Travel Award, summer 2015.
- Primary Investigator for the Hilltopper Mathematics and Computer Science Scholarship (HMCSS) program. This scholarship was funded by a \$206,250 grant from the National Science Foundation's Computer Science, Engineering, and Mathematics Scholarships Program (CSEMS). This award was effective August 1, 2002 - July 31, 2005.
- Nominee, Austin Community College Teaching Excellence Award, May 1998.

## Professional Organizations

- The Association for Computing Machinery (ACM)  
ACM Senior Member (2014)  
  
Special Interest Group Memberships:
  - SIGCAS – Computers and Society
  - SIGCSE – Computer Science Education
- Consortium for Computing Sciences in Colleges (CCSC)
- National Center for Women & Information Technology (NCWIT)
  - Academic Alliance Member
- Upsilon Pi Epsilon (Honor Society in the Computing Sciences)

## Professional Service Activities

- Memphis Academy of Health Sciences (MAHS), appointed Board Member, 2018 – present.
- Authentic Inclusion of Community Colleges in Broadening Participation in Computing, Panel Presenter and Workshop Participant, Jan. 30 – Feb. 1, 2018, Google, Mountain View, CA.
- Tennessee Independent Colleges and Universities Association (TICUA), Advancing Leaders Workshop, July 6-7, 2016.
- Dominican University, Chicago, Illinois, Computer Science Department, External Program Reviewer, spring 2015.
- The Institute for Certification of Computing Professionals (ICCP), CS2013 Assessment Examination Council, 2013-2016.
- CIT Advisory Boards, Bluegrass and Gateway Community and Technical Colleges (Covington and Lexington, KY), 2013-2016.
- Kenton County Informatics Academy, Advisory Member, 2013 to 2016.
- Austin Community College Board of Trustees, elected service, 2006-2012.
- The ACM Technical Symposium on Computer Science Education (sponsored by SIGCSE), Professional Papers, Workshops, and Student Research Posters Reviewer, 2001-present.
- Consortium for Computing Sciences in Colleges (CCSC)
  - Paper Reviewer, 1999-present.
  - Conference Site Chair, 2010 at SEU and 2018 at CBU.
  - Mid-South Region, Papers Co-chair, 2018.
  - Midwest Region Steering Committee, 2013-2016.
  - South Central Region Steering Committee, 1999-2002, 2003-2010, 2012-2013.
  - South Central Panels & Tutorials Chair, 1999-2001, 2012-2013.
  - South Central Regional Treasurer, 2007–2009.
  - South Central Webmaster, 2001-2007.
  - Local Arrangements Committee, 1998-1999.
- Northern Kentucky University Service
  - Center for Integrative Natural Science and Mathematics (CINSAM), STEM Chair.
  - Space Management and Deferred Maintenance Committee, 2015-2016.
  - Faculty Advisor, ACM student chapter, 2013-2016.
  - 2013-18 Strategic Plan Financial Resources Strategies Team, 2014.
  - myNKU Advisory Workgroup, 2013-2014.
- St. Edward's University Service
  - Department of Computer Sciences, Chair, 2005 – 2008.
  - 2015 Strategic Planning Steering Committee, Faculty representative, 2008-2010.
  - Faculty Curriculum Committee, 2011 – 2013, (committee chair 2011 – 2013).
  - Academic Council, Natural Sciences representative, spring 2003, 2011 - 2013.
  - Faculty Senate, Senator (at-large), 2007 – 2009.
  - Student Financial Aid and Success Committee, 2004 – 2007.
  - School of Natural Sciences Administrative Committee, 2004 – 2006.
  - Faculty Senate Committee on Course Evaluations, 2003 – 2005.
  - Service Scholarship Committee, 2002 - 2005.
  - Bioinformatics Degree Plan Committee, 2000-2003.
  - Teaching, Learning, and Technology Round Table, 2000-2003 (committee chair 2001-2003).
  - Freshman Orientation Activities, active faculty participant, 2000-2012.

### **Professional Service Activities** (continued)

- Texas Academy of Science  
Computer Science Section Chair, 2009-2010, 2012-2013.
- U.S. Civilian Research and Development Foundation (CRDF), grant proposals reviewer for the Cooperative Grants Program (CPG), 2003, 2005.
- The National Education Computing Conference (NECC), volunteer exhibitor for the Association for Computing Machinery-Special Interest Group on Computer Science Education (ACM-SIGCSE), June 16, 2002.
- National Science Foundation, Computer Science Engineering and Mathematics Scholarship, Panel Reviewer, October 2000.
- Austin Community College's Baldrige Criteria for Educational Improvement, Assessment Team Chair, Spring 2000.
- Austin Community College Committee Service  
Academic Policies and Standards Committee, 1998-1999.  
College-Wide Technology Committee, 1997-2000.  
Faculty Senate Audit Committee, 1995-1997 and 1999-2000.  
Mini-Grant Review Committee, 1997-2000.  
Who's Who Selection Committee, 1998-2000.
- Texas Community College Teachers Association, Computer Information Technology Section Leader, 1998-2000.
- Austin Independent School District, School-To-Career Curriculum Alignment Advisory Council Member, 1998-1999.
- IEEE Computer Society, Central Texas Section Chair, 1997-1998.

## Student Publications/Presentations Supervised

- Nicholas Gilman and Austin Elkins “Integrating Pygoogle and Scrapy to Facilitate Geographically Constrained Searches”, Poster presentation at the Heather Bullen Summer Research Celebration at Northern Kentucky University, August 26, 2016 and poster presentation at the Consortium for Computing Sciences Midwest Conference at University of Evansville, October 2, 2015.
- Aubrey Franzen, Katie Schwegman, and Deborah Burgess “A Comparison of Two Strategies to Prevent Starvation in a Priority Queuing System”, Poster presentation at the Celebration of Student Research and Creativity at Northern Kentucky University, April 15, 2015.
- Kirby Owens, Alex Pineda, Lucas Raley, and Kirsten Smithson “Privacy Implications of the Facebook API”, Poster presentation at the Heather Bullen Summer Research Celebration at Northern Kentucky University, August 27, 2014 and poster presentation at the Consortium for Computing Sciences Midwest Conference at Olivet Nazarene University, September 19, 2014 (*this poster won 3rd place in the student research poster competition*).  
I was a co-advisor on this project with Professor Charles Frank.
- Daniel Myers “Tools for Geographically Constrained Data Scraping”, Poster presentation at the Celebration of Student Research and Creativity at Northern Kentucky University, April 15, 2014.
- Austin Rosenbaum and Laken Ginn “A Byte Out of Maysville”, Poster presentation at the Celebration of Student Research and Creativity at Northern Kentucky University, April 15, 2014.
- Daniel Lafuente “Be There Or Be Cube”, Poster presentation at the Symposium On Undergraduate Research and Creative Expression (SOURCE) at St. Edward's University, April 20, 2012.
- Bradley S. Meek “Visualizing Text Based Pattern Matching”, Oral presentation at the Symposium On Undergraduate Research and Creative Expression (SOURCE) at St. Edward's University, April 17, 2009.
- Roy Nunez “Port-Hopping for Secure Data Transmission”, Oral presentation at the Symposium On Undergraduate Research and Creative Expression (SOURCE) at St. Edward's University, April 7, 2006. (Special Note: One of two oral presentations that received SOURCE awards.)
- Wesley Holler “Holleristics – Artificial Intelligence Research”, Oral presentation at the Symposium On Undergraduate Research and Creative Expression (SOURCE) at St. Edward's University, April 8, 2005. (Special Note: One of two oral presentations that received SOURCE awards.)
- Raul Cabezas “Analysis of Multi-Layer Starvation-Proof Priority Queuing Structure“, Research presentation at the 108<sup>th</sup> Annual Meeting of the Texas Academy of Science, March 4, 2005.

### **Student Publications/Presentations Supervised** (continued)

- Christopher Cahill and Linus Akanoh, Jr. “Financial Statements Investigations and Analysis”, Research presentation at the 108<sup>th</sup> Annual Meeting of the Texas Academy of Science, March 4, 2005. (Special Note: Placed 3<sup>rd</sup> overall in the undergraduate research oral presentation competition.)
- Wesley Holler “Holleristics”, Research presentation at the 108<sup>th</sup> Annual Meeting of the Texas Academy of Science, March 4, 2005. (Special Note: Earned honorable mention in the undergraduate research oral presentation competition.)
- Austin Ledbetter “Comparison of Data Compression Algorithms”, Research presentation at the 108<sup>th</sup> Annual Meeting of the Texas Academy of Science, March 4, 2005.
- Tim Rudloff “Simulating Multicast Routing: Selecting a Center”, Research presentation at the 108<sup>th</sup> Annual Meeting of the Texas Academy of Science, March 4, 2005.
- Andrew Staltman “Sensitivity Analysis of POMDP Problems”, Research presentation at the 108<sup>th</sup> Annual Meeting of the Texas Academy of Science, March 4, 2005.
- Lizeth Roque and Robert Burch “University Service Projects Involving Multiple Users”, Poster Presentation at the 15<sup>th</sup> Annual CCSC South Central Conference, April 16, 2004.
- Barry McRee “Evaluation of Media Player Performance Using Network Traffic Analysis”, Oral presentation at the Symposium On Undergraduate Research and Creative Expression (SOURCE) at St. Edward's University, April 2, 2004.
- Shaun Encarnacion and Jerry Garcia “Cryptography and Encryption: Implementing the Blowfish Algorithm”, Research presentation at the 107<sup>th</sup> Annual Meeting of the Texas Academy of Science, March 5, 2004.
- Raul Hinojosa “Packet Sniffing Over Wireless Connections”, Research presentation at the 107<sup>th</sup> Annual Meeting of the Texas Academy of Science, March 5, 2004.
- James D. Pringle “Evaluation of Software Based Firewalls”, Research presentation at the 107<sup>th</sup> Annual Meeting of the Texas Academy of Science, March 5, 2004.
- Kyle Clark and Chris Guerrini “Creating RCX Code Using C-type Languages”, Research presentation at the 106<sup>th</sup> Annual Meeting of the Texas Academy of Science, February 28, 2003.
- Jeffrey Litwinowich, L. Brooke Jackson, and Maribel Molina “Creating RCX Code Using an Object Oriented Approach”, Research presentation at the 106<sup>th</sup> Annual Meeting of the Texas Academy of Science, February 28, 2003.
- Melissa Y. Zavala “Can Genetic Programming Techniques Improve the Performance of Multicast Routing Algorithms?”, Poster presentation at The ACM Technical Symposium on Computer Science Education (sponsored by SIGCSE) as part of the ACM Undergraduate Research Competition, February 20, 2003. (Special Note: Placed as one of five semi-finalists in the competition.)



**Student Publications/Presentations Supervised** (continued)

- Chris Herbig "Genetic Algorithms vs. Greedy Algorithms in the Optimization of Course Scheduling", *The Journal of Computing in Small Colleges*, Volume 17, Number 5, April 2002. (Special Note: Placed 3rd overall in CCSC:SCC student paper competition.)
- Omar Lopez, Abraham Gandara, and Rebecca Shoher "On Campus Database Projects", *The Journal of Computing in Small Colleges*, Volume 17, Number 5, April 2002.
- Dory Parisi "An Interactive Ethics Game", *The Journal of Computing in Small Colleges*, Volume 17, Number 5, April 2002.
- Jeffrey J. Schindler "An Interactive Web Site for Distance Learning Students", *The Journal of Computing in Small Colleges*, Volume 17, Number 5, April 2002.
- Arnold Vento, Cindy Beltran, and Emi Taniuchi "Quantitative Analysis of Robotic Languages", *The Journal of Computing in Small Colleges*, Volume 17, Number 5, April 2002. (Special Note: Received honorable mention in CCSC:SCC student paper competition.)
- Raul Flores "Costing Performance Metrics of Accessible Web Browsers", Oral presentation at the Symposium On Undergraduate Research and Creative Expression (SOURCE) at St. Edward's University, February 1, 2002.
- Michael Lee Moore "Lego Mindstorms: Comparison of High Level Languages", Poster presentation at the Symposium On Undergraduate Research and Creative Expression (SOURCE) at St. Edward's University, February 1, 2002.
- Daniel Krutsinger "I Can Read It", *The Journal of Computing in Small Colleges*, Volume 16, Number 3, April 2001.
- Tony Mendolia "ICMP Datagrams in Traceroute Algorithms", *The Journal of Computing in Small Colleges*, Volume 16, Number 3, April 2001. (Special Note: Placed 2nd overall in CCSC:SCC student paper competition.)
- Willliam Natale "TCP/IP and Security Software Applications", *The Journal of Computing in Small Colleges*, Volume 16, Number 3, April 2001. (Special Note: Placed 3rd overall in CCSC:SCC student paper competition.)