

Dr. David C. Thornton
Jacksonville State University
Mathematical, Computing, and Information Sciences
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Education

PHD, Auburn University, 2008.
Major: Computer Science
Supporting Areas of Emphasis: Software Engineering
Dissertation Title: Investigating Player Behavior and Experience in Speech-enabled Multimodal Video Games

MS, Jacksonville State University, 2003.
Major: Computer Science
Supporting Areas of Emphasis: Software Engineering

BS, Jacksonville State University, 2001.
Major: Computer Science

Professional Positions

Academic - Post-Secondary

Full Professor, Jacksonville State University. (October 1, 2020 - Present).

Associate Professor, Jacksonville State University. (September 2, 2014 - September 30, 2020).

Interim Department Head, Jacksonville State University. (July 1, 2014 - June 30, 2016).

Assistant Professor, Jacksonville State University. (August 1, 2008 - September 1, 2014).

Instructor, Jacksonville State University. (August 2003 - May 2008).

Professional Memberships

Member and Conference Reviewer, Association for Computing Machinery. (November 1, 2008 - Present).

Member, Upsilon Pi Epsilon. (September 1, 2008 - Present).

Development Activities Attended

Workshop, "Inside an LLM Agent: A From-Scratch Walkthrough," Association for Computing Machinery. (June 4, 2026).

Conference Attendance, "Alabama Higher Education AI Exchange," ACHE, Tuscaloosa, Alabama. (October 22, 2025).

Conference Attendance, "2023 Game Dev Days Graz," Graz University of Technology, Graz, Austria. (October 7, 2023).

Workshop, "Promotion and Tenure Series," Faculty Commons. (April 11, 2019 - May 10, 2019).

Workshop, "Innovative Teacher Series," Faculty Commons. (February 4, 2019 - April 8, 2019).

Workshop, "Workshop on Information Assurance and Security: PLab," Kennesaw State University, Marietta, Georgia. (May 5, 2018).

Workshop, "Innovative Teacher Series," Faculty Commons. (September 13, 2017 - March 15, 2018).

Workshop, "CoRE Co-Teaching," Jacksonville State University. (July 15, 2013).

Workshop, "CoRE Learning Management Systems," Jacksonville State University. (May 10, 2013).

Workshop, "CoRE Technology and the Learning Environment," Jacksonville State University. (January 25, 2013).

Workshop, "CoRE Partnership Building Workshop," Jacksonville State University. (November 1, 2012).

"The Impact of College and Career Readiness/Common Core Standards," Jacksonville State University. (October 30, 2012).

"New Cybersecurity Threats and Techniques by Mr. Thomas Madden, Chief Information Security Officer," Center for Disease Control and Prevention (CDCP). (September 27, 2012).

"Partnership Meeting with Oak Ridge National Laboratory," Oak Ridge National Laboratory. (May 30, 2012).

Workshop, "HTML5 Game Camp," Microsoft. (November 10, 2011).

Workshop, "21st Century Classroom Initiative," Apple, Inc. (September 26, 2011).

Awards and Honors

Campus Technology Leadership Grant, Jacksonville State University. (May 8, 2020).

TEACHING

Teaching Experience

Jacksonville State University

CS 230, Fundamentals of Computing, 22 courses.
CS 231, Computer Programming I, 2 courses.
CS 305, Spreadsheet Modeling, 1 course.
CS 309, Introduction to E-Commerce, 1 course.
CS 30922, Game Design and Development, 1 course.
CS 311, Management Information Systems, 1 course.
CS 315, Intro to Web Design, 1 course.
CS 331, Data Structures and Algorithms, 1 course.
CS 339, Game Design I, 17 courses.
CS 350, Fund of Computer Operating Sys, 12 courses.
CS 415, Dynamic Web Application, 2 courses.
CS 430, Human-Computer Interaction, 4 courses.
CS 432, Computer Graphics, 5 courses.

CS 439, Game Design II, 10 courses.
CS 444, Artificial Intelligence, 2 courses.
CS 488, Database Systems, 2 courses.
CS 491, Software Engineering II, 12 courses.
CS 499, Spe Top Cultural Tourism Proj, 12 courses.
CS 501, Database Mgt Systems, 3 courses.
CS 521, Applied Software Eng I, 6 courses.
CS 523, Applied Software Eng II, 3 courses.
CS 544, App Artificial Intelligence, 1 course.
CS 591, Special Topics in Comp Sci, 6 courses.
CS 595, Studio Component, 4 courses.
CS 596, Studio Component, 4 courses.
CS 706, Applications of Innovative Technologies, 1 course.
EM 878, IT Applications for EM, 3 courses.
STU 101, First Year Experience, 1 course.

Non-Credit Instruction

High-school Mentoring, Calhoun County Board of Education, 2 participants. (March 1, 2026).
High-school Mentoring, Calhoun County Board of Education, 5 participants. (February 1, 2023).
High-school Mentoring, Calhoun County Board of Education, 2 participants. (February 23, 2022).
High-school Mentoring, United Way of East Central Alabama, 1 participant. (August 18, 2021 - November 19, 2021).
High-school Mentoring, Calhoun County Board of Education, 2 participants. (February 26, 2020).
High-school Mentoring, Calhoun County Board of Education, 2 participants. (November 8, 2018).
High-school Mentoring, Calhoun County Board of Education, 2 participants. (January 8, 2017 - April 1, 2017).
High-school Mentoring, Calhoun County Board of Education, 2 participants. (January 8, 2014 - April 1, 2014).

Directed Student Learning

Dissertation Committee Member, "What Affects Cyber Resilience within Regulated Banks," Emergency Management. (March 1, 2026 - Present).
Advised: Kathleen Ekberg

Master's Thesis Committee Chair, "Dynamic Difficulty Adjustment in Cybersecurity Games through Player Biofeedback," Mathematical Computing and Information Sciences. (January 8, 2018 - April 17, 2019).
Advised: Venkataramkumar Bandi

Master's Thesis Committee Chair, "Grocery Store App Development," Mathematical Computing and Information Sciences. (January 8, 2017 - December 1, 2017).
Advised: Mehera Bujaranpallyker

Master's Thesis Committee Chair, "Gamegogy Marketplace Block Development," Mathematical Computing and Information Sciences. (January 8, 2017 - June 1, 2017).
Advised: Kristen Cunningham

Directed Individual/Independent Study, "GPS Squad Tracker for CDP Training Administrators," Mathematical Computing and Information Sciences. (January 1, 2014 - May 1, 2014).
Advised: Joshua Webster

Master's Thesis Committee Chair, "Gamegogy Quest Path Block Development," Mathematical Computing and Information Sciences. (May 1, 2013 - May 1, 2014).
Advised: Jonathan Leftwich

Master's Thesis Committee Member, "Network Access Control System for Jacksonville State University," Mathematical Computing and Information Sciences. (April 1, 2013 - May 1, 2014).
Advised: Drew White

Directed Individual/Independent Study, "Gamegogy Leaderboard Block Development," Mathematical Computing and Information Sciences. (January 1, 2013 - May 1, 2013).
Advised: Daniel Bowden

Directed Individual/Independent Study, "Gamegogy Quest Path Block Development," Mathematical Computing and Information Sciences. (January 1, 2013 - May 1, 2013).
Advised: Jonathan Leftwich

Master's Thesis Committee Chair, "GameBox Management Application," Other (Within Jacksonville State University). (January 1, 2012 - April 10, 2013).
Advised: Jonathan Brooks

Directed Individual/Independent Study, "Natural Language Processing Project," Other (Within Jacksonville State University). (August 2012 - December 2012).
Advised: Gary Warren

Directed Individual/Independent Study, "Leaderboard Development for Game-inspired Pedagogy," Other (Within Jacksonville State University). (January 2012 - May 2012).
Advised: Chris Autwell

Directed Individual/Independent Study, "Blackboard Server and Building Blocks Deployment," Other (Within Jacksonville State University). (January 2012 - May 2012).
Advised: Chris Smith

Master's Thesis Committee Chair, "Adparo Drupal Organizer," Other (Within Jacksonville State University). (August 2011 - May 2012).
Advised: Joshua Rogers

Master's Thesis Committee Chair, "Development of an Apartment Search Website," Other (Within Jacksonville State University). (May 2011 - May 2012).
Advised: Chris Autwell

Master's Thesis Committee Chair, "Development of an Avatar Creator in Support of Gamegogy," Other (Within Jacksonville State University). (May 2011 - May 2012).
Advised: Shannon Hutchinson

Awards and Honors

George Mehaffey Excellence in Learning Technology Award, Jacksonville State University. (May 6, 2014).

Clyde P. Cox Teaching Award. (May 1, 2006).

RESEARCH

Published Intellectual Contributions

Book Chapters

Thornton, D. C. (2022). The Potential of Gaming to Ameliorate Human Factors in Information Security Compliance. In Guillermo Francia III, Jeffrey Zanzig (Ed.), *Global Perspectives on Information Security Regulations: Compliance, Controls, and Assurance*. Hershey, Pennsylvania: IGI Global.

Thornton, D. C., Turley, F. (2020). Dynamic Difficulty Adjustment in Cybersecurity Awareness Games: Analysis of Player Behavior and the Potential of Electroencephalography. In Kevin Daimi, Guillermo Francia III (Ed.), *Innovation in Cybersecurity Education* (1st ed., pp. 16). Springer International Publishing. <https://www.springer.com/gp/book/9783030502430>

Francia, G. A., Thornton, D. C., Trifas, M., Bowden, T. (2014). Gamification of Information Security Awareness Training. In Babak Akhgar and Hamid Arabnia (Ed.), *Emerging Trends in ICT Security* (pp. 85-97). Waltham, MA: Elsevier, Inc.. www.elsevier.com

Conference Proceedings

Thornton, D. C. (2026). *Conversational Teaching Assistant Supported by Large Language Model in Immersive Virtual Reality Game*. Association for Computing Machinery (ACM).

Thornton, D. C., Turley, F. (2020). Analysis of Player Behavior and EEG Readings in a Cybersecurity Game. *Proceedings of the 2020 ACM Southeast Conference* (pp. 149-153). New York, NY: Association for Computing Machinery. <https://doi.org/10.1145/3374135.3385276>

Francia, G. A., Thornton, D. C., Dawson, J. (2012). *Security Best Practices and Risk Assessment of SCADA and Industrial Control Systems*. Security and Management 2012 (SAM 2012) Conference.

Francia, G. A., Thornton, D. C., Brookshire, T. (2012). *Cyberattacks on SCADA Systems*. Colloquium for Information Systems Security Education.

Other

Thornton, D. C., Hur, J. W., Cramer, A., Raulston, C. (2025). *Alabama Course of Study: Digital Literacy and Computer Science* (2nd ed.). Montgomery, AL: Alabama State Department of Education. <https://alabamastandards.org/>

Richards, T., Gamess, E., Thornton, D. C. (2021). *A Survey of Wireless Network Simulation and/or Emulation Software for Use in Higher Education*. Virtual Conference: 2021 ACM Southeast Conference (ACMSE 2021).

Thornton, D. C. (2020). *FEMA Case Study Database*. Federal Emergency Management Agency. <http://www.jsu.edu/emergency-management/cdcr/repository/articleSearcher.html>

Thornton, D. C., Francia, G. A., Kim, K., Trifas, M., Krishnaprasad, S., Gamess, E. *ABET Interim Review Report* (pp. 83).

Thornton, D. C., Francia, G. A., Garrett, A., Kim, K., Plotnick, L. S., Krishnaprasad, S., Trifas, M. *ABET Self-study Report* (pp. 145).

- Thornton, D. C. (2013). *Gamegogy Quest Path Blackboard Block*. Blackboard, Inc..
jsu.blackboard.com
- Kim, J., Thornton, D. C. (2013). *Avatar Creator, Visual Learning and Game-based Pedagogy*.
Chattanooga, Tennessee: UCDA Design Education Summit 2013.
- Thornton, D. C. (2013). *Gamegogy Leaderboard Blackboard Block*. Blackboard, Inc..
jsu.blackboard.com
- Francia, G. A., Thornton, D. C., Brookshire, T. (2012). *Wireless Vulnerability of SCADA Systems*.
ACM Southeast Conference.

Refereed Journal Articles

- Thornton, D. C., Case, J. L., Peppers-Owen, C. (2019). Low-stakes Mathematics Placement and Preparation using EdReady. *Journal of the National College Testing Association*, 3, 21.
- Thornton, D. C., Francia, G. A. (2014). Gamification of Information Systems and Security Training: Issues and Case Studies. *Information Security Education Journal (ISEJ)*, 1(1), 14.
- Thornton, D. C., Gilbert, J. (2011). Investigating Player Behavior and Experience in Speech-enabled Multimodal Video Games. *The International Journal of Technology, Knowledge and Society*. ijt.cgpublisher.com
- Garrett, A., Thornton, D. C. (2009). Librate: The Jacksonville State University Library Book Rating System. *International Journal of Technology, Knowledge and Society*, 5(2), 39--54.
ijt.cgpublisher.com/

Presentations Given

- Stone, S., Mertens, D., Thornton, D. C., Fulbright Opportunities for Faculty - Faculty Commons Presentation. (October 28, 2025).
- Thornton, D. C., A+ College Ready's Computer Science Fall Conference and Workshop 2025, "Alabama's New Course of Study: DLCS," Alabama State Department of Education, Tuscaloosa, AL. (October 6, 2025).
- Thornton, D. C., A+ College Ready's Computer Science Fall Conference and Workshop 2025, "CS Students: Perspectives from Higher Ed," Alabama State Department of Education, Tuscaloosa, AL. (October 6, 2025).
- Clark, C., Dempsey, D. W., Dempsey, H. L. (Author & Presenter), Norvell, B., Ridlen, J., Thornton, D. C., JSU Faculty Research Symposium, "JSU's Faculty Senate: Past, Present, Future," Jacksonville State University, Jacksonville, AL. (November 7, 2024).
- Thornton, D. C., Fulbright Opportunities - Faculty Commons Presentation. (March 7, 2024).
- Thornton, D. C., 2022 JSU Faculty Research Symposium, "Gamification, Serious Games, and Virtual Reality," JSU, JSU. (November 3, 2022).
- Thornton, D. C. (Presenter), Sasser, T. T. (Presenter), Faculty Commons Professional Development, "Gamification in the Classroom: Mechanics and Free Apps," Jacksonville State University, Jacksonville, AL. (March 30, 2022).
- Thornton, D. C. (Author & Presenter), Fast, J. (Author & Presenter), Richards, A. (Author & Presenter), FEMA Higher Education Program Community Call, "Demo of DEM Teaching

- Cases Repository Database," FEMA, Online. (April 16, 2021).
- Reed, T. P., Donaldson, E., Thornton, D. C., Douglas, C., Faculty Commons, "Best Practices for Classroom Communication when We Are Not in the Classroom," JSU Faculty Commons, JSU Faculty Commons. (January 6, 2021).
- Thornton, D. C., Faculty Commons Professional Development, "Teamwork Makes the Dream Work," Jacksonville State University, Online. (October 7, 2020).
- Thornton, D. C., Gardner, T. J., Faculty Commons Summer Canvas Training, "You Better Clean Up That Room: Cleaning up Course Shells for Simplicity and Navigability," Jacksonville State University, Online. (May 7, 2020).
- Turley, F., Thornton, D., ACM Southeast Conference, "Analysis of Player Behavior and EEG Readings in a Cybersecurity Game," Tampa, FL. (April 2020).
- Thornton, D. C., CORE Back-to-school Professional Development Workshop, "Gamification and Student Response Systems," Jacksonville State University, Houston Cole Library. (September 6, 2018).
- Francia, G. A., Thornton, D. C., Richards, G., CORE Cybersecurity Workshop, "CyberEd for Administrators and Teachers," Jacksonville State University. (June 7, 2018).
- Thornton, D. C., 2018 Core Academy Conference, "Creating 360-Degree Virtual Tours," Jacksonville State University's Office of Planning and Research, Jacksonville State University. (June 6, 2018).
- Francia, G. A., Thornton, D. C., GenCyber Fall Meeting 2017, "JSU GenCyber Symposium," NSA, NSF, Orlando, Florida. (September 17, 2017).
- Case, J. L., Peppers-Owen, C., Thornton, D. C., "EdReady: A Low Stakes Alternative to Placement Testing," American Association of State Colleges and Universities, Baltimore, Maryland. (July 22, 2017).
- Thornton, D. C., 2017 Core Academy Conference, "Inexpensive Virtual Reality for the Classroom," Jacksonville State University's Office of Planning and Research, Jacksonville State University. (June 6, 2017).
- Thornton, D. C., GenCyber Spring Meeting 2017, "Demo of Cybersecurity Games and Classroom Exercises," NSA, NSF, San Antonio, Texas. (May 2, 2017).
- Thornton, D. C., Greeley, A., Farag, W., GenCyber Spring Meeting 2017, "Cyber Ethics and Safe Online Behavior: Effective Methods and Tools," NSA, NSF, San Antonio, Texas. (May 1, 2017).
- Thornton, D. C., Pong to Pokemon Go!: A History of Electronic Gaming, JSU Library, Gaming Club, and History Club, Houston Cole Library. (November 16, 2016).
- Thornton, D. C., Mathematics and Computing Colloquium, "Gamegogy: Game-inspired Pedagogy," Mathematics and Computing Department, Ayers Hall. (October 21, 2016).
- Francia, G. A. (Presenter), Thornton, D. C. (Presenter), Snellen, J. (Presenter), Richards, G., GenCyber Information Security Workshop, National Security Agency and National Science Foundation, Jacksonville, AL. (July 11, 2016).
- Thornton, D. C., 2015 Core Academy Conference, "Free, Web-based Student Response

- Systems," Jacksonville State University's Office of Planning and Research, Jacksonville State University. (June 6, 2015).
- Beckett, S. W. (Author & Presenter), Peppers-Owen, C. (Author & Presenter), Case, J. L. (Author & Presenter), Thornton, D. C. (Author & Presenter), EdReady Webinar Series, "JSU EdReady Math Placement: Reasons and Decisions," Monterey Institute for Technology and Education, World Wide Web. (April 30, 2015).
- Francia, G. A. (Presenter), Thornton, D. C. (Presenter), Trifas, M. (Presenter), Game Making Workshop for Information Security Awareness Curriculum, National Security Agency, Jacksonville, AL. (June 14, 2013).
- Thornton, D. C., 2013 Core Academy Conference, "Incorporating Gamification into Your Curriculum," Jacksonville State University's Office of Planning and Research, Jacksonville State University. (June 4, 2013).
- Thornton, D. C., BamaBUG Academic Technology Conference, "Facilitated Gamification: Increasing Student Engagement and Motivation," Blackboard, Inc., University of Alabama. (May 31, 2013).
- Thornton, D. C. (Presenter), 16th Meeting of the Colloquium for Information Systems Security Education, "Cyberattacks on SCADA Systems," Orlando, Florida. (June 11, 2012).
- Thornton, D. C. (Presenter), Garrett, A. (Presenter), ACADEME Meeting, "Using Game-inspired Pedagogical Techniques in an Introductory Programming Course," Jacksonville State University, Houston Cole Library. (March 19, 2012).
- Dempsey, D. W. (Author & Presenter), Dempsey, H. L. (Author), Garrett, A. (Author), Thornton, D. C. (Author), 90th Annual Meeting of the Mathematical Association of America - Southeastern Section (MAA-SE), "Temporal Discounting and Effort Discounting: An Application of Mathematics to Behavioral Economics," Mathematical Association of America - Southeastern Section (MAA-SE), Tuscaloosa, AL. (April 2, 2011).
- Thornton, D. C. (Author & Presenter), Garrett, A. (Author & Presenter), Dempsey, D. W. (Author), Dempsey, H. L. (Author), Annual Meeting of the Alabama Academy of Science, "Developing a Game-Inspired Curriculum for an Introductory Programming Course," Alabama Academy of Science, Jacksonville, AL. (March 2011).
- Dempsey, H. L. (Author & Presenter), Dempsey, D. W. (Author & Presenter), Garrett, A. (Author), Thornton, D. C. (Author), Sudduth, J. (Author), Morton, S. (Author), Ferrell, D. (Author), Association for Behavior Analysis International Behavioral Economics Conference: From Demand Curves to Public Policy, "Discounting of Exam Grades, Extra Credit, and Delayed Money," Association for Behavior Analysis International, Chicago, IL. (March 2011).
- Dempsey, D. W. (Author & Presenter), Dempsey, H. L. (Author & Presenter), Thornton, D. C. (Author), Garrett, A. (Author), Martin, S. (Author), Whetstone, M. (Author), Ussery, E. (Author), Association for Behavior Analysis International Behavioral Economics Conference: From Demand Curves to Public Policy, "Hypothetical vs. Real-Time Effort Discounting of Extra Credit," Association for Behavior Analysis International, Chicago, IL. (March 2011).
- Thornton, D. C., 89th Annual Meeting of the Alabama Academy of Science, "Game-inspired Pedagogy in an Introductory Computer Programming Course," Jacksonville State University, Jacksonville, AL. (March 2, 2011).
- Thornton, D. C. (Author & Presenter), Gilbert, J. (Author & Presenter), SpeechTEK 2008, "VUI Design for Multimodal Applications," Information Today, Inc., New York, New York. (August

18, 2008).

Contracts, Grants and Sponsored Research

Contract

Littlejohn, K., McGriff, B., Gamess, E., Hopwood, M., Thornton, D. C., Snellen, J., "USSS Malware Grant," Sponsored by United States Secret Service, \$800,000.00. (October 1, 2024 - Present).

Grant

Islam, T. (Co-Principal), Messina, C. (Co-Principal), Thornton, D. (Co-Principal), Porter, A. (Supporting), "BRIDGE: Building Resilience Introducing Disaster Games in Education," Sponsored by NSF, Federal. (August 2022 - Present).

Gross, B. I. (Principal), Thornton, D. (Supporting), Dunn, C. (Supporting), "A More Perfect Union: Digitizing the Preamble Section of the Zombie Apocalypse Constitution Simulation", " Sponsored by National Endowment for the Humanities, Federal, \$150,000.00. (2022 - 2025).

Gross, B. I. (Principal), Thornton, D. (Supporting), Dunn, C. (Supporting), "A More Perfect Union: Digitizing the Preamble Section of the Zombie Apocalypse Constitution Simulation", " Sponsored by National Endowment for the Humanities, Federal, \$150,000.00. (2021 - 2024).

Richards, G. (Co-Principal), Francia, G. A. (Co-Principal), Thornton, D. C. (Principal), Snellen, J. (Co-Principal), "2019 GenCyber Cybersecurity," Sponsored by NSF/NSA, Federal, \$100,000.00. (January 1, 2019).

Paynter, K. (Supporting), Stephens, W. (Principal), Francia, G. A. (Co-Principal), Thornton, D. C. (Co-Principal), Willis, B. (Supporting), Lee, E. (Supporting), Caldwell, B. (Supporting), Barnes, J. (Supporting), "Expanding Computational Integration in Teacher Education (ExCITE) In-Field Development," Sponsored by National Science Foundation, Federal, \$325,000.00. (July 2, 2018 - August 15, 2018).

Paynter, K. (Supporting), Stephens, W. (Principal), Francia, G. A. (Co-Principal), Thornton, D. C. (Co-Principal), Willis, B. (Supporting), Lee, E. (Supporting), Caldwell, B. (Supporting), Barnes, J. (Supporting), "JSU—ExCITE 2018: Extending Computational Integration in Teacher Education in Middle and High Schools Serving Underrepresented and Underserved Communities," Sponsored by National Science Foundation, Federal, \$1,850,000.00. (July 2, 2018 - August 15, 2018).

Richards, G. (Co-Principal), Francia, G. A. (Principal), Thornton, D. C. (Co-Principal), Snellen, J. (Co-Principal), "2017 GenCyber Cybersecurity," Sponsored by NSF/NSA, Federal, \$99,529.00. (April 1, 2017 - March 30, 2018).

Richards, G. (Co-Principal), Francia, G. A. (Co-Principal), Thornton, D. C. (Principal), Snellen, J. (Co-Principal), "2018 GenCyber Cybersecurity," Sponsored by NSF/NSA, Federal, \$100,000.00. (January 1, 2018).

Kim, K. (Co-Principal), Francia, G. A. (Principal), Thornton, D. C. (Co-Principal), "JSU CyberCorps: Scholarship for Service (JSU-SFS)," Sponsored by National Science Foundation (NSF), Jacksonville State University, \$1,705,055.00. (2017).

Richards, G., Francia, G. A., Francia, G. A., Thornton, D. C., Snellen, J., "2017 GenCyber Cybersecurity," Sponsored by NSF/NSA, Federal, \$129,000.00. (April 1, 2017 - December 1, 2017).

Thornton, D. C., "REAL Classroom Grant," Sponsored by Faculty Commons, Jacksonville State University, \$20,000.00. (June 1, 2017).

Richards, G. (Co-Principal), Francia, G. A. (Principal), Thornton, D. C. (Co-Principal), Snellen, J. (Co-Principal), Simmons, A. (Co-Principal), "GenCyber Cybersecurity Grant 2016," Sponsored by National Security Agency and National Science Foundation, Federal, \$98,000.00. (May 15, 2016 - December 31, 2016).

Kim, K. (Co-Principal), Francia, G. A. (Principal), Thornton, D. C. (Co-Principal), "JSU CyberCorps: Scholarship for Service (JSU-SFS)," Sponsored by National Science Foundation (NSF), Jacksonville State University, \$1,750,980.00. (2016).

Sasser, T. T. (Co-Principal), Thornton, D. C. (Co-Principal), "REAL Teaching Grant," Sponsored by JSU Faculty Commons, Jacksonville State University, \$1,000.00. (January 8, 2016 - September 1, 2016).

Kim, K. (Co-Principal), Francia, G. A. (Principal), Trifas, M. (Co-Principal), Thornton, D. C. (Co-Principal), Tseng, H. (Co-Principal), "EDU: Cybersecurity Education and Resources Expansion (CERE)Project," Sponsored by National Science Foundation (NSF), Jacksonville State University, \$275,220.00. (2015).

Kim, K. (Co-Principal), Francia, G. A. (Principal), Thornton, D. C. (Co-Principal), Krishnaprasad, S. (Co-Principal), "JSU CyberCorps: Scholarship for Service (JSU-SFS)," Sponsored by National Science Foundation (NSF), Jacksonville State University, \$2,743,305.00. (2015).

Thornton, D. C., Garrett, A., Reed, T. P., Rider, E. L., Trifas, M., "EXP: PlayServe: A Gamification Framework for Service Learning," Sponsored by National Science Foundation, Federal, \$323,674.00. (November 1, 2014).

Kim, K. (Co-Principal), Francia, G. A. (Principal), Garrett, A. (Co-Principal), Thornton, D. C. (Co-Principal), "JSU CyberCorps: Scholarship for Service (JSU-SFS)," Sponsored by National Science Foundation (NSF), Jacksonville State University, \$1,603,837.00. (2013).

Francia, G. A. (Principal), Thornton, D. C. (Co-Principal), Trifas, M. (Co-Principal), "Annex II Capacity Building-Outreach to Academia," Sponsored by Department of Defense, Federal, \$46,088.00. (October 1, 2012 - December 30, 2013).

Kilgo, R. W. (Co-Principal), Francia, G. A. (Principal), Marbut, T. M. (Co-Principal), Thornton, D. C. (Co-Principal), Ryan, K. (Co-Principal), Tanya, B. (Co-Principal), "STEM Teacher Retention, Initiation, Preparation, and Enrichment (STRIPE) Project Discovery Research K-12," Sponsored by NSF, Federal, \$3,000,000.00. (December 5, 2013).

Dempsey, H. L. (Co-Principal), Thornton, D. C. (Principal), Garrett, A. (Co-Principal), Dempsey, D. W. (Co-Principal), "Gamegogy: Game-inspired pedagogy," Sponsored by National Science Foundation (NSF), Federal, \$200,000.00. (June 30, 2013).

Thornton, D. C. (Principal), Garrett, A. (Co-Principal), Dempsey, H. L. (Co-Principal), Dempsey, D. W. (Co-Principal), "Gamegogy: Game-inspired Pedagogy," Sponsored by NSF, Federal, \$550,000.00. (June 1, 2013).

Francia, G. A. (Principal), Garrett, A. (Co-Principal), Bekhouche, N. (Co-Principal), Marbut, T. M. (Co-Principal), Thornton, D. C. (Co-Principal), "MRI-R2: Acquisition for the Critical Infrastructure Security and Assessment Laboratory (CISAL)," Sponsored by NSF, Federal, \$415,600.00. (May 1, 2010 - April 30, 2013).

Kim, K. (Co-Principal), Francia, G. A. (Principal), Garrett, A. (Co-Principal), Thornton, D. C. (Co-Principal), McKerchar, T. L. (Co-Principal), "Framework for CyberTrust through Intelligent Performance Monitoring (CIPM)," Sponsored by National Science Foundation (NSF), Jacksonville State University, \$494,323.00. (2012).

Buttram, H. D. (Supporting), Marbut, T. M. (Supporting), Scroggins, W. A. (Supporting), Thornton, D. C. (Supporting), Francia, G. A. (Principal), Zanzig, J. S. (Supporting), "Virtual 3-D Crime Scene Processing Training Gaming Shell.," Sponsored by Department of Defense, National Science Foundation, Byrne Grant., Federal, \$600,000.00. (January 1, 2011 - December 31, 2011).

Trifas, M. (Co-Principal), Thornton, D. C. (Co-Principal), Francia, G. A. (Co-Principal), "Integrated K12 Curriculum for App Inventor and Lego Mindstorms NXT Robots," Sponsored by GOOGLE, Private, \$25,540.00. (November 30, 2011).

Garrett, A. (Principal), Thornton, D. C. (Co-Principal), "Roof Savings Calculator Upgrade," Sponsored by Oak Ridge National Labs, Federal, \$18,677.00. (June 2011 - September 2011).

Trifas, M. (Co-Principal), Thornton, D. C. (Co-Principal), Yang, M. (Principal), Bourbakis, N. (Co-Principal), "Video and Image Enhancement for Assisting Sensor Operators in Multi-Unmanned Aerial Systems," Sponsored by Air Force, Federal. (September 25, 2008).

Sponsored Research

Thornton, D. C., "Fulbright Visiting Professor to Graz University of Technology," Sponsored by Fulbright Austria, Other, \$23,000.00. (October 1, 2023 - January 31, 2024).

Awards and Honors

Excellence in Scholarly Research/Creative Activity, College of Arts, Humanities, and Sciences. (April 22, 2024).

Best Paper Award, Colloquium for Information Systems Security Education. (June 13, 2012).

Research Currently in Progress

"BRIDGE: Building Resilience Introducing Disaster Games in Education (NSF Grant)".

"Dynamic Difficulty Adjustment of Serious Games" (On-Going).

Serious games are a category of games whose main goal is not entertainment. These include games for education, training, and therapy. Dynamic difficulty adjustment (DDA) is an attempt to ensure that a game's difficulty is customized to every player's ability, with the goal of increasing engagement. Employing effective DDA approaches to serious games holds promise to improve user outcome and satisfaction.

"Gamegogy: Game-inspired Pedagogy" (On-Going).

This project aims to incorporate the motivating factors of digital gaming into college curriculum in order to increase student motivation and satisfaction.

SERVICE

Department Service

Presenter, Cherokee County Schools Recruitment Visit. (February 21, 2023 - Present).

Presenter, Youth Leadership Calhoun County Recruitment Visit. (February 1, 2019 - Present).

Coordinator, CS/CIS Program Coordinator. (August 1, 2017 - Present).

CORE Scholars Dual Enrollment Departmental Tour. (June 1, 2017 - Present).

Website Manager, Computing. (January 1, 2014 - Present).

Presenter, Lincoln High School Recruitment Visit. (November 1, 2012 - Present).

Preview Day Presenter. (April 1, 2008 - Present).

Committee Member, Graduate Curriculum. (2008 - Present).

Committee Member, Undergraduate Curriculum. (2005 - Present).

Preview Day/Student Recruitment, Calhoun County Schools Enrichment Visits. (March 7, 2024 - March 9, 2024).

Presenter, Jacksonville High School Recruitment Visit. (December 8, 2022).

Presenter, Anniston High School Recruitment Visit. (August 15, 2022).

Committee Chair, Search Committee (CS Faculty Member). (November 1, 2021 - April 1, 2022).

Presenter, Calhoun County Leadership Visit. (March 12, 2020).

Committee Chair, Search Committee (CS Faculty Member). (November 1, 2018 - April 1, 2019).

Committee Member, Search Committee (CIS Faculty Member). (October 1, 2017 - May 1, 2018).

Presenter, Gadsden State Recruitment Visit. (February 20, 2018).

Committee Chair, Search Committee (CS Faculty Member). (March 15, 2017 - September 1, 2017).

Committee Chair, Computer Science Club. (August 1, 2011 - June 1, 2015).

Committee Chair, Programming Competition. (January 1, 2008 - August 1, 2014).

Career and Co-op Coordinator. (January 1, 2010 - June 1, 2014).

School Service

Committee Member, Geography Search Committee. (February 14, 2023 - April 15, 2023).

Committee Member, Wallace Hall Re-Design Committee. (December 2, 2020 - June 1, 2021).

Committee Member, School of Science Search Committee. (July 5, 2016 - August 8, 2016).

Committee Member, Curriculum Change Committee. (August 2009 - 2015).

University Service

Task Force Member, Online Proctoring and Originality Feedback Policies Task Force. (March 1, 2025 - Present).

Task Force Member, AI Task Force. (January 17, 2025 - Present).

Faculty Senate Representative, Academic Assessment Committee. (October 1, 2024 - Present).

Committee Member, Faculty Senate. (April 1, 2024 - Present).

Guest Speaker, Admitted Students Day, Academic Department Showcase. (November 1, 2022 - Present).

Judge, Tech Fair Judge. (March 7, 2021 - Present).

Committee Member, Digital Literacy and Computer Science Course of Study Committee / Task Force. (February 1, 2025 - December 1, 2025).

Task Force Member, Honor Lock/Turn It In Task Force. (November 1, 2024 - May 1, 2025).

Committee Member, Faculty Senate Executive Committee. (April 1, 2024 - April 1, 2025).

Committee Chair, Policies and Campus Planning Committee. (April 1, 2024 - April 1, 2025).

Director, Student Symposium Committee. (January 8, 2019 - March 1, 2025).

Committee Member, Articulation and General Studies Committee (AGSC) - Academic Subcommittee. (January 11, 2019 - October 1, 2024).

Letter Writer, Recommendation Letters. (January 1, 2022 - January 1, 2023).

Guest Speaker, Accepted Students Day, Academic Department Showcase. (February 7, 2020 - October 31, 2022).

Committee Member, Navigate Leadership Team. (August 20, 2018 - January 14, 2022).

Committee Member, Technology Advisory Committee. (September 23, 2020 - December 1, 2020).

French Toast Expert, Midnight Breakfast at the Caf. (April 23, 2019).

Committee Member, Student Symposium Committee. (June 1, 2009 - January 7, 2019).

Committee Chair, Faculty Honors Committee. (January 1, 2017 - May 1, 2018).

Committee Member, International Partnerships Subcommittee. (July 1, 2016 - May 1, 2017).

Special Institutional Assignment, Transfer Pathway Program. (May 1, 2016 - May 1, 2017).

Committee Member, Course Evaluation Committee. (January 15, 2016 - July 1, 2016).

Committee Member, Strategic Planning Committee. (June 1, 2014 - August 1, 2015).

Committee Chair, Technology Implementation Subcommittee. (August 1, 2010 - August 1, 2015).

Program Organizer, Digital Measures Training Sessions. (August 1, 2012 - May 1, 2014).

Committee Member, Quality Enhancement Plan - Focus Committee. (January 1, 2013 - April 1, 2014).

Committee Chair, Best Practices Committee. (May 1, 2011 - June 1, 2012).

Program Organizer, Digital Measures Training Sessions. (August 1, 2011 - May 1, 2012).

Professional Service

Committee Member, Association for Computing Machinery Southeast Conference. (September 1, 2024 - Present).

Reviewer, Conference Paper, Information Systems for Crisis Response and Management. (January 1, 2012 - Present).

Ambassador, 2026-2028, Fulbright Ambassadors. (May 1, 2026 - October 1, 2028).

Reviewer, Ad Hoc Reviewer, Fulbright US Scholar Peer Reviewer. (November 1, 2025 - November 12, 2025).

Committee Member, Alabama State Department of Education, Montgomery, Alabama. (February 1, 2025 - November 1, 2025).

Reviewer, Ad Hoc Reviewer, Fulbright Technical Reviewer, Binational Fulbright Egypt. (August 5, 2025 - August 8, 2025).

Reviewer, Book, IGI Global, Hershey, Pennsylvania. (November 23, 2021 - November 24, 2021).

Reviewer, Ad Hoc Reviewer, University of Baltimore. (August 1, 2021 - August 2, 2021).

Committee Member, CORE Proposal Committee, Jacksonville, Alabama. (February 18, 2016 - April 1, 2016).

Track Organizer, Information Systems for Crisis Response and Management. (July 1, 2013 - June 1, 2015).

Session Chair, Alabama Academy of Science. (2009 - 2011).

Public Service

Advocate, Fulbright Program, Washington DC, DC. (May 11, 2026 - May 13, 2026).

Guest Speaker, JSU Kids' College. (July 17, 2024).

Guest Speaker, Kitty Stone Elementary STEM Sessions. (October 3, 2022 - October 7, 2022).

Workshop Organizer, JSU ConEd Summer STEAM Camp. (June 21, 2021 - June 24, 2021).

Guest Speaker, Kitty Stone Elementary Career Day. (April 2019 - April 2021).

Workshop Organizer, Summer STEAM Camp for Girls. (March 1, 2017 - June 30, 2017).

Workshop Organizer, Boy Scouts of America, Jacksonville, Alabama. (January 1, 2009 - June 1, 2013).

Track Organizer, Enrichment Workshops for Coosa Christian School. (March 13, 2010 - March 13, 2013).

Guest Speaker, Coosa Valley Youth Services, Jacksonville, Alabama. (February 27, 2013).

Volunteer, Calhoun Christian Women's Job Corps, Anniston, Alabama. (September 2010 - April 2012).

Volunteer, Hobson City Public Library, Hobson City, Alabama. (August 2010 - June 2011).

Track Organizer, Numbers CEU Workshop, Jacksonville, Alabama. (June 1, 2008 - June 1, 2011).

Guest Speaker, Kitty Stone Elementary, Jacksonville, AL. (February 2010 - April 2010).