

EDWARD C. DILLON, JR., Ph.D.

Associate Professor
Department of Information Systems
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EDUCATION

- **Ph.D. Computer Science, University of Alabama** August 2012
Advisor: Dr. Marcus Brown
Thesis Title: *Measuring the Effects on Low-Assistive vs. Moderately Assistive Environments on Novice Programmers.*
- **M.S. Computer Science, University of Alabama** August 2009
Thesis Title: *Which Environment is More Suitable for Novice Programmers:
Editor/Command Line/Console Environment vs. Integrated Development Environment?*
- **B.A. Computer and Informational Science, University of Mississippi** May 2007
Minor: Chemistry

RESEARCH AREAS OF EXPERTISE

Human-Centered Computing with emphasis on Computing Education, Tech Workforce Prep, AI in Computing Education, and Broadening Participation in Computing

FUNDED GRANT PROPOSALS & AWARDS

External Funding Accumulated (as PI or Co-PI): \$3,899,636

Special Research Funding for Undergraduate Research (CRA): \$10,500.00

TOTAL FUNDING AWARDED: \$3,910,136

- [AW 6] **Funding Agency:** National Science Foundation; **Project Title:** Collaborative Research: CISE-BPC-DP: Opportunities for Promoting Equity and Nurturing Academic Career-preparation in Computing Education for Student Success (OPEN-ACCESS) at Hispanic Serving Institutions; **Date Submitted:** 1/16/2024; **Date Awarded:** 8/22/2024; **Role on Proposal:** Co-Principal Investigator; **Amount Awarded for Project:** \$300,000 (over 2 years); **Amount Awarded for my particular project:** \$148,453 (over 2 years)
- [AW 5] **Funding Agency:** National Science Foundation; **Title:** Collaborative Research: BPC-AE: STARS: Catalyzing Action-Oriented Academic Communities for Broadening Participation in Computing; **Date Submitted:** 6/11/2021; **Date Awarded:** 8/26/2021; **Role on Proposal:** Co-Principal Investigator; **Amount Awarded for Project:** \$3,000,000 (over 3 years); **Amount Awarded for my particular project:** \$171,094.00 (over 3 years)
- [AW 4] **Funding Agency:** National Science Foundation; **Title:** TARGETED INFUSION PROJECT: Infusing Learning Initiatives for Improving the Programming Proficiency of Computer Science Majors at Morgan State University (a Multi-Year Initiative); **Date Submitted:** 11/26/19; **Date Awarded:** 6/29/2020; **Role on Proposal:** Principal Investigator; **Amount Awarded for Project:** \$399,636.00 (over 3 years)

- [AW 3] **Funding Agency:** National Science Foundation; **Title:** TARGETED INFUSION PROJECT: Infusing Learning Initiatives for Improving the Programming Proficiency of Computer Science Majors at Morgan State University; **Date Submitted:** 11/26/18; **Date Awarded:** 7/15/19; **Role on Proposal:** Principal Investigator; **Amount Awarded for Project:** \$150,000.00 (over 1 year)
- [AW 2] **Funding Agency:** Maryland Pre-Service Computer Science Teacher Education Program; **Title:** Making Computational Thinking Accessible to Diverse Student Populations (MCAD); **Date Submitted:** 3/15/19; **Date Awarded:** 4/15/19; **Role on Proposal:** Co-Principal Investigator; **Amount Awarded:** \$50,000.00 (over 2 years)
- [AW 1] **Funding Organization:** Collaborative Research Experience for Undergraduates (CREU) – Computing Research Association – Women (CRA-W); **Project Title:** Developing Innovative Technology to Promote Co-Production Between Students and Campus Law-Enforcement; **Date Submitted:** 5/29/18; **Date Awarded:** 8/2/18; **Amount Awarded:** \$10,500.00 (over 1 year)

PUBLICATIONS

(Citations: 449; H-Index: 9; i10-Index: 9; - *Google Scholar*)

[Journals/Book Chapter]

- [JBC 9] Williams K L, **Dillon E**, Jones J L, Carter S, Walker W, and Melchior S. (2025). “Proving Our Worth: HBCUs, STEM Partnerships and the Marginalization of Black Women in Industry Settings.” *The Review of Higher Education*. Advance online publication on *Project MUSE*.
- [JBC 8] Williams K L, **Dillon E**, Carter S, Jones J, and Melchior S. (2024). “CS=Me: Exploring Factors that Shape Black Women’s CS Identity at the Intersections of Race and Gender.” *ACM Transactions on Computing Education*, 24(2), 1-20. Presented at SIGCSE 2025 as an invited presentation.
- [JBC 7] **Dillon E**, and Williams K L. (2020). “Course Content as a Tool of Inclusivity for Black/African American Women in Computing.” *Journal of Computing Sciences in Colleges* 36(3), pp. 151-160.
- [JBC 6] Kowalski R, **Dillon E**, Macbeth J, Franci M, and Bush M. (2020). “Racial Differences in Cyberbullying from the Perspective of Victims and Perpetrators.” *Journal of Orthopsychiatry* 90(5), pp. 644–652.
- [JBC 5] Osias J, Partlow L, and **Dillon E**. (2018). “Using Mobile Application Development and 3-D Modeling to Encourage Minority Male Interest in Computing and Engineering.” *Transactions on Education, IEEE*, Vol. 61(4), pp. 1-7.
- [JBC 4] **Dillon E**, Williams B, Kang S, Gilbert J, Brinkley J, and Moon D. (2017). “Bridging the Safety Divide through Technology to Improve the Partnership between Students and Campus Law-Enforcement: An ‘App’ Opportunity.” In J.D. Ward (Eds.), *Policing and Race in America: Economic, Political, and Social Dynamics*, Lexington Books, pp. 207-219.
- [JBC 3] **Dillon E**, Anderson M, and Brown M. (2014). “Teaching Students to Program Using Visual Environments: Impetus for Potential Misconception?” *Journal of Computational Science Education*, 5(1), pp. 28-43.
- [JBC 2] **Dillon E**, Anderson M, and Brown M. (2012). “Comparing Feature Assistance Between Programming Environments and Their Effect on Novice Programmers.” *Journal for Computing Sciences in Colleges*, 27(5), pp. 69-77.
- [JBC 1] Liu L, and **Dillon E**. (2010). I-Interaction: “An Intelligent In-Vehicle User Interaction Model,” *International Journal of UbiComp*, 1(3), pp. 57-67.

[Conference Proceedings (Refereed)]

- [CP 24] Lunn S, **Dillon E**, Thapaliya A, and Williams K L. (2026). Occupation-Oriented Success] {Occupation-Oriented Success: How Educators From Hispanic-Serving Institutions Approach Fostering Technical and Professional Competencies With Computing Learners. Accepted for publication in *2026 ACM Special Interest Group on Computer Science Education (SIGCSE 2026)*. ACM.
- [CP 23] **Dillon E**, Ordóñez P, Hasan U, Owoeye O N, and Dharmale S R. (2025). Exploring the Impact of ChatGPT on Early Information Systems Majors: Opportunities and Challenges in Learning to Program. In *2025 IEEE Frontiers in Education Conference (FIE)* (pp. 1-9). IEEE.
- [CP 22] Thapaliya A, Lunn S, **Dillon E**, and Williams K L. (2025). Preparation Practices: Faculty Perspectives on Technical Interviews at Hispanic-Serving Institutions in the Southeastern Region of the United States. In *2025 IEEE Frontiers in Education Conference (FIE)* (pp. 1-9). IEEE.
- [CP 21] Lunn S, **Dillon E**, Williams K L, Lemus K, and Ruiz C. (2025). Faculty Preparation Strategies: Empowering Computing Students to Achieve Technical Interview Success. In *2025 IEEE Frontiers in Education Conference (FIE)* (pp. 1-9). IEEE.
- [CP 20] **Dillon E**, Gosha K, Williams K L, Porter III J J, and Smith P. (2024). WIP: Technical Interview Preparation Initiative: Promoting Faculty Awareness and Intervention With Computing Majors. In *2024 IEEE Frontiers in Education Conference (FIE)* (pp. 1-5). IEEE.
- [CP 19] **Dillon E**, McMichael M, Wimberly Jr, T, Pryor A S, Davis D, Ayodele T, Arowolaju A, and Williams K L (2024). Exploring the Impact of Exposing Command Line Programming to Early CS Majors (An HBCU Case Study). Published in the *2024 American Society for Engineering Education Annual Conference & Exposition*, <http://dx.doi.org/10.18260/1-2--47434>.
- [CP 18] Lunn S, **Dillon E**, & Sadid Z A. (2024). Educational Expertise: Faculty Insights on Preparing Computing Students to Navigate Technical Interviews. Published in the *2024 American Society for Engineering Education Annual Conference & Exposition*, <http://dx.doi.org/10.18260/1-2--47215>.
- [CP 17] Field R, **Dillon E**, & Fuller S J. (2023). Surveying the Importance of Integrating Technical Interviews into Computer Science Curriculums and Increasing Awareness in the Academy. In *2023 ASEE Annual Conference & Exposition*. Published in the *2023 American Society for Engineering Education Annual Conference & Exposition*, <http://dx.doi.org/10.18260/1-2--44382>.
- [CP 16] **Dillon E**, Dina A, McMichael M, Wimberly Jr. T, Brown L, & Williams K L. (2023). Exposing Early CS Majors to Technical Interview Practices in the Form of Group-Based Whiteboard Problem Solving Activities. Published in the *2023 American Society for Engineering Education Annual Conference & Exposition*, <http://dx.doi.org/10.18260/1-2--43665>.
- [CP 15] **Dillon E**, Wimberly Jr, T, McMichael M, Brown L, Dina A, & Williams K L. (2023). Examining Psychological and Social Factors That Impact the Experiences and Representation of Black Women in Computer Science (A Case Study). Published in the *2023 American Society for Engineering Education Annual Conference & Exposition*, <http://dx.doi.org/10.18260/1-2--43495>.
- [CP 14] **Dillon E**, Williams K L, Fuller S, Djapa E, Dina A, Wilridge M, and Rogers C. (2022). “Exploring the Impact of Student Learning and Programming Pedagogy while Adjusting to COVID- 19 (An HBCU Case Study).” In *2022 International Conference on Computational Science and Computational Intelligence (CSCI)*, IEEE, 2022, pp. 1983-1987.
- [CP 13] **Dillon E**, Williams B, Ajayi A, Bright Z, Kimble-Brown Q, Rogers C, Lewis M, Esema J, Clinkscale B, and Williams K L. (2021). “Evaluating Face-to-Face vs. Virtual Pedagogical Coding Review

Sessions in the CS classroom: An HBCU Case Study.” *2021 Conference on Research in Equitable and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, IEEE, 2021, pp. 1-5.

- [CP 12] **Dillon E**, Williams B, Ajayi A, Bright Z, Kimble-Brown Q, Rogers C, Lewis M, Esema J, Clinkscale B, and Williams K L. (2021). “Exposing Early CS Majors to Coding Interview Practices: An HBCU Case Study.” *2021 Conference on Research in Equitable and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, IEEE, 2021, pp. 1-4.
- [CP 11] Liu L, **Dillon E**, and Zhang J. (2017). “Finding a Holistic Design for Elderly People to Type on Smartphones.” Presented at the *ACM 10th International Conference on Pervasive Technologies Related to Assistive Environments (PETRA 2017)*, Rhodes, Greece, pp. 91-95.
- [CP 10] **Dillon E**, Brinkley J, Moon D, Gilbert J, Kang S, and Williams, B. (2016). “Bridging the Safety Divide through Technology to Improve the Partnership between Students and Campus Law-Enforcement.” Appear in the proceedings of the *International Conference on Urban Education (ICUE 2016)*. San Juan, PR.
- [CP 9] Zhang X, Tong J, Vishwamitra N, Mazer J, Kowalski R, Hu H, Luo F, Whittaker E, Macbeth J and **Dillon E**. (2016). “Cyberbullying Detection with a Pronunciation Based Convolutional Neural Network.” Presented at the *IEEE International Conference on Machine Learning and Applications (IEEE ICMLA '16)*, Anaheim, CA, pp. 740-745.
- [CP 8] **Dillon E**, Macbeth J, Kowalski R, Whittaker E, and Gilbert J. (2016). “Is this Cyberbullying or Not?:” Intertwining Computational Detection with Human Perception (A Case Study).” Presented at the *Conference Applied Human Factors and Ergonomics (AHFE 2016) – Advances in Human Factors in Cybersecurity*, Orlando, FL, pp. 337-345.
- [CP 7] Abegaz T, **Dillon E**, and Gilbert J. (2015). “Investigating Perceived Usability and Choice Satisfaction of Alternative Search Engine’s Presentation for Older Adults.” Presented at the *Human Factors and Ergonomics Society (HFES 2015)*, Los Angeles, CA, 59(1), pp. 80-84.
- [CP 6] **Dillon E**, Gilbert J, Jackson J, and Charleston L. (2015). “The State of African Americans in Computer Science: The Need to Increase Representation.” *Computing Research Association – Women, Expanding the Pipeline Column*, 27(8).
- [CP 5] Abegaz T, **Dillon E**, and Gilbert J. (2015). “Exploring Affective Reaction During User Interaction with Colors and Shapes.” Presented at the *Conference on Applied Human Factors and Ergonomics (AHFE 2015)*, Las Vegas, NV, vol. 3, pp. 5253-5260.
- [CP 4] Gilbert J, Jackson J, **Dillon E**, and Charleston L. (2015). “African Americans in the U. S. Computing Sciences Workforce: An Exploration of the Education-to-Work Pipeline.” *Communications of ACM (BPC Viewpoint)*, pp. 35-38.
- [CP 3] Dawson S, Crawford C, **Dillon E**, and Anderson M. (2015). “Affecting operator trust in intelligent multirobot surveillance systems.” Presented at the *IEEE International Conference on Robotics and Automation (ICRA 2015)*. Seattle, WA, pp. 3298-3304.
- [CP 2] **Dillon E**, Anderson M, and Brown M. (2012). “Studying the Novice’s Perception of Visual and Command Line Programming Tools in CS1.” *Human Factors and Ergonomics Society (HFES 2012)*. Boston, MA, 56(1), pp. 605-609.

- [CP 1] **Dillon E**, Anderson M, and Brown M. (2012). “Comparing Mental Models of Novice Programmers when using Visual and Command Line Environments.” *ACM Southeast Conference (ACM-SE 2012)*. Tuscaloosa, AL, pp. 142-147.

[Abstracts/Posters (Refereed)]

- [AP 13] **Dillon E**, Gosha K, Williams K L, Porter J J, III, & Smith P (2024). Inclusive technical interview prep initiative to increase academic awareness at a larger scale. In *Proceedings of the 2024 Black Issues in Computing Education (BICE)*. IEEE.
- [AP 12] **Dillon E**, Washington P, Nosiri C, Mehravaran S, Apata J, Barsha R, Sheikhattari P. (2020). Digitizing a smoking cessation intervention for underserved populations; The CEASE Today Smoking Cessation Program. Presented at the *2020 American Public Health Association Meeting and Expo* (Virtual).
- [AP 11] **Dillon E**, Williams K. L. (2020). Connecting with Computing: Exploring Black/African-American Women’s People-Centered Interests in Computing Sciences. Presented at the *2020 Conference on Research on Equity & Sustained Participation in Engineering, Computing, & Technology (RESPECT)*, Portland, OR.
- [AP 10] Sheikhattari P, Apata J, **Dillon E**, Mehravaran S. (2019). Digitizing a Community-Based Smoking Cessation Intervention. Presented at the *2019 Research Centers in Minority Institutions (RCMI) Conference*, Bethesda, MD.
- [AP 9] Elias J, Thompson S. M, Mooney K, Gatobu J, and **Dillon E**. (2019) “Developing Innovative Technology to Promote Co-Production Between Students and Campus-Law Enforcement.” Presented as a poster at the *26th Annual Undergraduate and Graduate Research Symposium*. Baltimore, MD.
- [AP 8] Franchi M, Kowalski R, **Dillon E**, Macbeth J, & Bush M. (2018). Race/ethnicity and cyberbullying victimization and perpetration. Presented at the annual meeting of the *Society of Southeastern Social Psychologists*, Raleigh, NC.
- [AP 7] **Dillon E**, Page X, and Wisniewski P. (2018). Is Breaking Up Hard To Do?: Managing Relationship Boundaries on Social Networking Sites. In *Proceedings of the 2018 ACM Conference on Supporting Groupwork (GROUP '18)*. ACM, New York, NY, USA, 132-135.
- [AP 6] Williams B, Gilbert J, **Dillon E**, and Brinkley, J. (2016). “The State of Police-Community Relations: Implications for Leveraging an 'App' Opportunity.” Presented at the *Mini Conference on Policing and Race*, University of Cincinnati, Cincinnati, OH
- [AP 5] Whittaker E, Kowalski R, **Dillon E**, and Macbeth J. (2016). “Is It or Isn’t It? Cyberbullying in Everyday Life.” Presented as a poster at the *Southeastern Psychological Association Conference (SEPA)*, New Orleans, LA.
- [AP 4] Kowalski R, Toth A, **Dillon E**, Macbeth J, Herzog A, and Thatcher, J. (2015). “Cyberbullying among individuals with disabilities.” Presented at the annual meeting of the *Society of Southeastern Social Psychologists*. Winston-Salem, NC.
- [AP 3] **Dillon E**, and Anderson-Herzog M. (2015). “Exposing Rural African American Students to Computer Science as a Career Choice Using Robots.” Presented as a poster at the *IEEE STC-BPC Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, Charlotte, NC.

- [AP 2] Dawson S, Crawford C, **Dillon E**, and Anderson M. (2012). “Examining the Expectations of Autonomy and Human Intervention in a Multi-robot Surveillance Task.” Presented as a poster at *ACM Southeast Conference*. Tuscaloosa, AL.
- [AP 1] **Dillon E**, Anderson M, and Brown M. (2012). “Comparing Feature Sets within Visual and Command Line Environments and their effect on Novice Programming.” Presented as a poster at *ACM SIGCSE Conference on Computer Science Education*. Raleigh, NC.

[Student-Based Abstracts (under my mentorship)]

- [SBA 3] Lewis M, Ajayi A, Kimble-Brown Q, and Williams B. (2021). “Exploring the Impact of Exposing Coding Interview Practices to Early CS majors.” In *Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (SIGCSE 2021)*. Virtual Conference.
- [SBA 2] Olumese J, Rogers C, Conteh D, and Whitaker M. (2020). “Exploring the Use of Coding Reviews in Early Programming Courses to Gauge Student Learning.” In proceedings of the *51st ACM Technical Symposium on Computer Science Education (SIGCSE 2020)*. Portland, OR.
- [SBA 1] Cooper S, Clinkscale B, Williams B, and Lewis M. (2020). “Exploring the Impact of Exposing CS Majors to Programming Concepts using IDE Programming vs. non-IDE Programming in the Classroom.” In proceedings of the *51st ACM Technical Symposium on Computer Science Education (SIGCSE 2020)*. Portland, OR.

INVITED LECTURES & PRESENTATIONS

[Invited Professional Presentations & Lectures (*Research-Based*)]:

- [IP 15] University of Maryland, Baltimore County – Department of Information Systems WISS Series (November 20, 2024):
- Title of Talk: Enhancing Computational Thinking Skills while Addressing ChatGPT Challenges in Introductory Programming Courses
 - Location: Baltimore, MD
- [IP 14] University of Maryland, Baltimore County – Interactive Systems Research Center (FIKA Group) (September 30, 2024):
- Title of Talk: Life After Graduate School: Know Your Options
 - Location: Baltimore, MD
- [IP 13] University of Maryland, Baltimore County – Department of Information Systems (March 12, 2024):
- Title of Talk: Increasing Academic Awareness to Tech Industry Expectations through the Infusion of Technical Interview Preparation Practices
 - Location: Baltimore, MD
- [IP 12] University of Georgia – Engineering Education Transformations Institute (January 10, 2024):
- Title of Talk: Increasing Academic Awareness to Tech Industry Expectations through the Infusion of Technical Interview Preparation Practices
 - Location: Athens, GA
- [IP 11] Kennesaw State University – Department of Computer Science (October 25, 2023):
- Title of Talk: Exposing Early CS Majors to Technical Interview Practices in the form of Interactive Whiteboard Problem-Solving
 - Location: Kennesaw, GA

- [IP 10] The University of Alabama – Department Computer Science Seminar Series (August 31, 2023):
- Title of Talk: Exposing Early CS Majors to Technical Interview Practices in the form of Interactive Whiteboard Problem-Solving
 - Location: Tuscaloosa, AL
- [IP 9] Clemson University – School of Computing Seminar Series (October 28, 2022):
- Title of Talk: Exposing Early CS Majors to Technical Interview Practices in the form of Interactive Whiteboard Problem-Solving
 - Location: Virtual Seminar – Due to COVID-19 Pandemic
- [IP 8] 2022 STARS Celebration of Broadening Participation in Computing (September 10, 2022):
- Title of Talk: STARS Inclusive Workforce Preparation
 - Location: Marriott Marquis, Washington, DC
- [IP 7] 6th IEEE STCBP Conference for Research on Equity and Sustained Participation in Engineering, Computing, and Technology (May 23-27, 2021):
- Title of Talk: Evaluating Face-to-Face vs. Virtual Pedagogical Coding Review Sessions in the CS classroom: An HBCU Case Study (published as a conference proceeding)
 - Location: Virtual Conference – Due to COVID-19 Pandemic
- [IP 6] 6th IEEE STCBP Conference for Research on Equity and Sustained Participation in Engineering, Computing, and Technology (May 23-27, 2021):
- Title of Talk: Exposing Early CS Majors to Coding Interview Practices: An HBCU Case Study (published as a conference proceeding)
 - Location: Virtual Conference – Due to COVID-19 Pandemic
- [IP 5] 36th Annual Consortium of Computing Science Eastern Conference (October 23 – 24, 2020):
- Title of Talk: Course Content as a Tool of Inclusivity for Black/African-American Women in Computing (published as a journal article)
 - Location: Hood College, Frederick, MD - Virtual Conference Due to COVID-19 Pandemic
- [IP 4] American Society for Public Administration Conference (ASPA) 2018 (March 9 – 13, 2018):
- Title of Talk: Bridging the Safety Divide through Technology to Improve the Partnership between Students and Campus Law-Enforcement: An “App” Opportunity (published as a book chapter)
 - Location: Hyatt Regency Denver, Denver, CO
- [IP 3] 2018 ACM International Conference on Supporting Groupwork - GROUP ’18 (January 7-10, 2018):
- Title of Talk: Is Breaking Up Hard To Do?: Managing Relationship Boundaries on Social Networking Sites.
 - Location: Sanibel Island, FL
- [IP 2] 10th ACM International Conference on Pervasive Technologies Related to Assistive Environments – PETRA 2017 (June 21-23, 2017):
- Title of Talk: Finding a Holistic Design for Elderly People to Type on Smartphones (published as a conference proceeding)
 - Location: Island of Rhodes, Greece
- [IP 1] Morgan State SCMNS Interdisciplinary Seminar Series (April 6, 2017):
- Title of Talk: Exploring the Potential Impacts of Technology from a Social Context

- Location: Morgan State University - Traveler's Auditorium (125 Dixon Research Center)

[Oral/Professional Presentations (as a student)]

- [OP 7] Dillon E. (2010). "Which Environment is More Suitable for Novice Programmers: Editor/Command Line/Console Environment vs. Integrated Development Environment (*continuing study*)?" Presented at the *Graduate Student Association Spring Conference*, University of Alabama, Tuscaloosa, AL.
- [OP 6] Dillon E. (2009). "Which Environment is More Suitable For Novice Programmers: Editor/Command Line/Console Environment vs. Integrated Development Environment (*pilot study*)?" Presented at the *ACM Mid-Southeast Conference*, Gatlinburg, TN.
- [OP 5] Dillon E. (2008). "Surveying Various Approaches in Detecting and Understanding Communities in Social Mobile Networks," Presented at the Graduate Student Association Spring Conference, University of Alabama, Tuscaloosa, AL.
- [OP 4] Dillon E. (2007) "Suitable Development Environments for Novice Java Programmers." Presented at the *Mississippi Academy of Sciences*, Mississippi State University, Starkville, MS. ***Won first place in the Computer Science Division.***
- [OP 3] Dillon E. (2007). "Suitable Development Environments for Novice Java Programmers." Presented at the *Annual Ronald E. McNair Conference*, University of Maryland, College Park, MD.
- [OP 2] Dillon E. (2006). "Suitable Development Environments for Novice Java Programmers." Presented at the *Louis Stokes Mississippi Alliance for Minority Participation*, Jackson State University, Jackson, MS.
- [OP 1] Dillon E. (2006). "Suitable Development Environments for Novice Java Programmers." Presented at the *McNair Summer Research Conference*, Pennsylvania State University, State College, PA.

[Poster Presentations]

- [PP 4] **Dillon E**, Anderson M, and Brown M. (2012). "Measuring the Effects on Low-Assistive vs. Moderately Assistive Environments on Novice Programmers." Poster presented at the *Academic Career Workshop (ACW)*, Atlanta, GA.
- [PP 3] Dillon E. (2010). "Which Environment is more Suitable for Novice Programmers: Editor/Command Line/Console Environment vs. Integrated Development Environment (*continuing study*)?" Poster presented at the *Computer Human Interaction Mentoring (CHIME) Workshop*, Atlanta, GA.
- [PP 2] Dillon E. (2009). "Which Environment is more Suitable for Novice Programmers: Editor/Command Line/Console Environment vs. Integrated Development Environment (*pilot study*)?" Poster presented at the *NSF/LSAMP/AGEP Spring Conference*, Auburn, AL. ***Won second place in the Mathematics/Science Division for Graduate Students.***
- [PP 1] Dillon E. (2008). "Does Graphical Querying Improve Novice Users' Success when using Boolean Expressions?" Poster presented at *NSF/LSAMP/AGEP Spring Conference*, Huntsville, AL. ***Won first place in the Computer Science Division for Graduate Students.***

[Moderator/Panelist/Speaker]

- [MPS 13] **Speaker**: "STARS Inclusive Workforce Preparation", STARS 2022 Celebration, September 2022 Washington, DC.
- [MPS 12] **Panelist**: "Building an inclusive Computing Community: One Decision at a Time", September 2020 2020 Richard Tapia Celebration of Diversity in Computing Virtual Conference

(Tapia 2020).

- [MPS 11] **Panelist:** “Faculty Careers at Smaller Universities”, NextProf Nexus Future Faculty Workshop, University of Michigan (Virtual Session). September 2020
- [MPS 10] **Moderator:** “What Do MSI CISE PIs Wish They’d Known Before they Started their CISE Core Award?”, NSF CISE Conference, Arlington, VA. February 2020
- [MPS 9] **Panelist:** “Imposter Syndrome”, UMES CS Symposium, University of Maryland-Eastern Shore November 2019 Princess Anne, MD. November 2019
- [MPS 8] **Speaker:** “Being an Upsilon Pi Epsilon Scholar”, Upsilon Pi Epsilon Honor Ceremony, November 2019 University of Maryland-Eastern Shore, Princess Anne, MD. November 2019
- [MPS 7] **Panelist:** “Imposter Syndrome”, Sisters Scholars PhD Wellness Retreat, Marriottsville, MD. October 2019
- [MPS 6] **Moderator:** “Fairness Panel”, NSF Fairness, Ethics, Accountability, and Transparency (FEAT) in CISE Workshop, Atlanta, GA. August 2019
- [MPS 5] **Speaker:** “Current Faculty: Innovations in Computer Science Teaching”, National Society of Blacks in Computing Conference, Atlanta, GA. August 2019
- [MPS 4] **Speaker:** “Future Faculty: Writing your Research and Teaching Statements”, National Society of Blacks in Computing Conference, Atlanta, GA. August 2019
- [MPS 3] **Panelist:** “How to Successfully Navigate the Google Faculty in Residence Experience”, Google FIR 2019, Mountain View, CA. June 2019
- [MPS 2] **Panelist:** “How to Get Into Graduate School”, Ronald E. McNair Workshop, Tougaloo College, Jackson, MS. January 2010
- [MPS 1] **Panelist:** “How to Get Into Graduate School”, LSAMP Bridge to the Doctorate Seminar, University of Alabama-Birmingham, Birmingham, AL. September 2007

PROFESSIONAL & TEACHING EXPERIENCE

- [Associate Professor] University of Maryland, Baltimore County August 2024 - Present
- **Department:** Information Systems
 - **Courses Taught:** Introduction to Computer Programming
 - **Duties/Tasks:**
 - Organize and teach a 16-week lecture course that introduces information system majors on the business technology administration track to introductory programming principles using the Python language.
 - Organize and teach a 16-week lecture course that introduces information systems majors to introductory programming principles using the Java language.
 - Maintain a course websites to administer tasks and lecture notes.
 - Conduct weekly lectures, and provide summary notes from the weekly lectures to the students in these courses.

- Correspond to students via e-mail, office hours, or scheduled meetings regarding questions about course material, grades, and related concerns.
- Interact directly with students in the classroom/lab as they work on their assignments.

▪ **Research:**

- Develop and conduct research on topics that focus on *Educational*, *Human*, and *Societal* factors in the field of Computing.
- Collaborate on research with colleagues who reside at the University of Maryland, Baltimore County and other institutions with expertise in similar and different fields of study.
- Mentor Masters and Ph.D. students who are enrolled at the University of Maryland, Baltimore County with relative interests in my field of study.
- Conduct data collection and analysis on the data acquired from participants involved in the research.
- Compose and report research findings in the form of full manuscripts or abstracts within journal venues or conference proceedings.
- Communicate research contributions as an oral presentation or in poster format to audiences at conference or seminar settings.

▪ **Service:**

- Serve as member of the Information Systems Promotion and Tenure Committee.
- Serve as a member of the Engineering Makerspace Committee.
- Serve as co-chair of the Cybersecurity Tenure Track Search Committee (2025-26).
- Serve as a UMBC faculty representative for the Celebrating Black Excellence Event.
- Served as a committee member for a Masters Thesis Defense (Spring 2025)

[Associate/Assistant Professor] Morgan State University

January 2017 – July 2024

▪ **Department:** Computer Science

▪ **Courses Taught:** Introduction to Computer Science I; Introduction to Computer Science II; Advanced Programming; Object-Oriented Programming; Algorithm Design & Analysis; Mobile App Design & Development (with Android); iOS Mobile Application Development; Senior Research

▪ **Duties/Tasks:**

- Organize and teach a 16-week lecture course that introduces computer science majors to introductory computer science principles using the Python language.
- Organize and teach a 16-week lecture course that exposes computer science majors to advanced data structures and related concepts using the C++ language.
- Organize and teach a 16-week lecture course that exposes computer science majors to advanced algorithm design and analyses.
- Facilitate a 15-week applied course that exposes both computer science and engineering majors to iOS and Android Mobile Application Development.
- Maintain a course website to administer tasks and lecture notes.
- Conduct weekly lectures, and provide summary notes from the weekly lectures to the students in these courses.

- Correspond to students via e-mail, office hours, or scheduled meetings regarding questions about course material, grades, and related concerns.
- Interact directly with students in the classroom/lab as they work on their assignments.

▪ **Research:**

- Develop and conduct research on topics that focus on *Educational*, *Human*, and *Societal* factors in the field of Computer Science.
- Collaborate on research with colleagues who reside at the Morgan State University and other institutions with expertise in similar and different fields of study.
- Conduct data collection and analysis on the data acquired from participants involved in the research.
- Compose and report research findings in the form of full manuscripts or abstracts within journal venues or conference proceedings.
- Communicate research contributions as an oral presentation or in poster format to audiences at conference settings.
- Train and mentor undergraduate students on research projects in an effort to 1) expose them to research, 2) broaden their understanding to the breadth of Computer Science areas, and 3) encourage them to pursue advanced computer science degrees at the graduate level.

▪ **Service:**

- Served as member of the Computer Science Promotion and Tenure Committee.
- Served as a member of the Computer Science Faculty Search Committee.
- Served as the faculty advisor for the Associated Computing Machinery (ACM) Student Chapter (SACs) in the Computer Science Department.
- Served as the Chair of the Computer Science Colloquium/Seminar Series.
- Served as a member of the SCMNS Dean Search Committee.
- Served as a member of the Computer Science Department Chair Search Committee.
- Served as a planning committee member for the SCMNS Graduate Luncheon and Awards Ceremony.
- Served as an instructor and mentor for the Morgan State Chapter of the Verizon Innovative Learning Program for Minority Males.
- Served as a member of the Computer Science Department Curriculum Committee.

[Faculty-in-Residency] Google Headquarters, Mountain View, CA

June 2018 – July 2018

- The Google Faculty-in-Residency (FIR) allowed me to:
 - Experience hands-on workshops and resources to augment applied learning.
 - Enhance the importance of both project-based and group-based learning.
 - Gain insights into industry expectations and the technical interviewing process.
 - Embed and immerse myself within the Mountain View campus to gain knowledge on Google's engineering culture and developer practices.
 - Develop effective computational and learning strategies to be employed in my classroom to help computer science majors develop proper skill-sets that can be applicable and transferrable throughout their careers.

[Postdoctoral Associate/Fellow] University of Florida/Clemson University August 2013 – December 2016

- **Department:** Computer and Information Science and Engineering/School of Computing
- **Supervisor:** Dr. Juan E. Gilbert
- **Duties/Tasks:**
 - Developed and conducted research on topics that focus on *Human* and *Societal* factors in the field of Computer Science.
 - Collaborated on research with colleagues who reside at the University of Florida, Clemson University, or other institutions with expertise in similar and different fields of study.
 - Conducted data collection and analysis on the data acquired from participants involved in the research.
 - Implemented computational and scripting programs using languages like Python to gather further information for analysis.
 - Composed and reported research findings in the form of full manuscripts or abstracts within journal venues or conference proceedings. Refer to the *PUBLICATIONS* section for cited manuscripts.
 - Communicated research contributions as an oral presentation or in poster format to audiences at conference settings. Refer to the *PUBLICATIONS* and *PRESENTATIONS* sections for cited oral and poster presentations.

[Program Manager] University of Florida/Clemson University August 2013 – December 2016

- **Organization:** Institute for African American Mentoring in Computing Science (iAAMCS)
- **Lead Principal Investigator:** Dr. Juan E. Gilbert
- **Funding Source:** National Science Foundation – BPC Alliance
- **Duties/Tasks:**
 - Executed the spoken and unspoken needs from the various parties within iAAMCS (the Lead Principal Investigator, Co-Principal Investigators, Affiliates, Advisory Board, and Partners) to maintain the enhancement and preservation of the organization.
 - Disseminated and advertised information about iAAMCS through verbal communication, e-mail, and the organization's website.
 - Arranged monthly meetings with the Principal Investigators and Affiliates, develop the agenda for these meetings, and transcribe and disseminate the notes taken during these meetings.
 - Communicated to the Advisory Board current progresses made by iAAMCS, while also acquiring feedback and suggestions for further enhancement.
 - Directed the development of promotional materials (brochures, flyers, and posters) for iAAMCS.
 - Recruited new participants into the organization during conference events and meetings.
 - Developed and maintained the iAAMCS website using HTML and CSS programming languages.
 - Composed iAAMCS annual reports for submission to its funding source, *National Science Foundation*.
 - Composed articles that discuss iAAMCS and its broader impact (citations: **Dillon**, Gilbert, Jackson, and Charleston, 2015; Gilbert, Jackson, **Dillon**, and Charleston, 2015). Refer to the *PUBLICATIONS* section for full citations of these articles.

[Computer Science Instructor] Jackson State University

August 2012 – July 2013

- **Department:** Computer Science
- **Courses Taught:** Programming Fundamentals (using C++); Digital Computing Principles
- **Duties/Tasks:**
 - Implemented, organized, and taught a 16-week lecture course and 15-week lab course that introduced 30 students to introductory computer science principles.
 - Taught a 16-week service course that exposed 100+ college students from various academic disciplines to computer software applications.
 - Exposed students to computational programming concepts using the C++ language.
 - Created computational programs as part of course material for training college students to program using C++ that ranged from basic introductory paradigms to the incorporation of advanced data structures.
 - Maintained three course websites to administer tasks and lecture notes.
 - Conducted weekly lectures, and provided summary notes from the weekly lectures to the students in these courses.
 - Corresponded to students via e-mail, office hours, or scheduled meetings regarding questions about course material, grades, and related concerns.
 - Interacted directly with the students in the lab course as they worked on their weekly assignments.

[Graduate Research Assistant] University of Alabama

January 2011 – May 2012

- **Department:** Computer Science
- **Advisors/Mentors:** Dr. Marcus Brown; Dr. Monica Anderson-Herzog
- **Duties/Tasks:**
 - Implemented and conducted research on developed dissertation topic.
 - Collaborated on research topics with colleagues at the University of Alabama that focused on *Human* and *Educational* factors in the field of Computer Science.
 - Created basic Python programs as part of a research assessment for studying the mental models of college students who were being trained to program in an introductory Python programming course.
 - Conduct data collection and analysis on the data acquired from participants involved in the research.
 - Compose and report research findings in the form of full manuscripts or abstracts within journal venues or conference proceedings. Refer to the *PUBLICATIONS* section for cited manuscripts.
 - Communicate research contributions as an oral presentation or in poster format to audiences at conference settings. Refer to the *PUBLICATIONS* and *PRESENTATIONS* sections for cited oral and poster presentations.
 - Gave an oral defense on particular findings that stemmed from developed dissertation topic.

[Engineering Instructor] University of Alabama

Summer 2010, 2011, & 2012

- **College:** College of Engineering
- **Duties/Tasks:**

- Implemented, organized, and taught a week-long course that introduced high school students to the field of Computer Science.
- Exposed students to computational programming concepts using the HTML language.
- Interacted directly with the students as they worked on projects using HTML.
- Corresponded with the students before and after class regarding questions about the field of Computer Science or college expectations.

[Computer Science Instructor] University of Alabama

August 2009 – December 2009

- **Department:** Computer Science
- **Duties/Tasks:**
 - Taught a 15-week lecture and lab course that introduced 160+ college students from various academic disciplines to basic computational programming procedures using HTML, CSS, and JavaScript languages.
 - Corresponded to the students via e-mail, office hours, or scheduled meetings regarding questions about course material, grades, and related concerns.
 - Developed and provided summary notes from the weekly lectures to the students in this course.
 - Interacted directly with the students in the lab course as they worked on their weekly projects.

PROFESSIONAL SERVICE

Conference Organizing Committee

RESPECT 2026 – Experience Report Track Chair	2026
RESPECT 2025 - Research Papers (Works-In-Progress) Track Chair	2025
RESPECT 2020 – Program Co-Chair	2019
NSBC 2019 – Scholarship & Registration Committee Member	2019
RESPECT 2018 – Proceedings Co-Chair	2017

Conference Paper Reviewer

EDUCON 2025 - IEEE Global Engineering Education	2025
AAAI 2025 - Association for the Advancement of Artificial Intelligence	2025
EDUCON 2024 - IEEE Global Engineering Education	2024
FIE 2024 – Frontiers in Education	2024
ASEE 2024 – American Society for Engineering Education	2024
RESPECT – Research on Equity & Sustained Participation in Computing, Engineering, & Technology	2021
SIGCSE 2020 – Special Interest Group on Computer Science Education	2019
iConference 2019 – iSchools Organization: Leading and Promoting the Information Field	2018
RESPECT – Research on Equity & Sustained Participation in Computing, Engineering, & Technology	2018
RESPECT – Research on Equity & Sustained Participation in Computing, Engineering, & Technology	2017
Tapia - ACM Richard Tapia Celebration of Diversity in Computing	2014
ACMSE - Association for Computing Machinery (ACM) Southeast Conference	2012
CCSCMS - Consortium for Computing Sciences in Colleges Mid-South Conference	2012
IEEE/RSJ - International Conference on Intelligent Robots and Systems	2012

Journal Article Reviewer

International Journal: Equality, Diversity, & Inclusion	2023
International Journal: Equality, Diversity, & Inclusion	2021

Frontiers in Education	2021
PLOS ONE	2020
IEEE - Transactions on Education	2019
ACM – Transaction on Computing Education	2019

Proposal Panel Reviewer

National Science Foundation – Panel Reviewer (already accepted)	February 2026
National Science Foundation – Panel Reviewer	January 2025
National Science Foundation – Panel Reviewer	March 2024
National Science Foundation – Panel Reviewer	January 2022
National Science Foundation – Panel Reviewer	January 2021
National Science Foundation – Panel Reviewer	February 2020
National Science Foundation – Ad Hoc Reviewer	July 2019
National Science Foundation – Panel Reviewer	March 2019
National Science Foundation – Panel Reviewer	November 2018

Webmaster

AAGSA - African American Graduate Student Association	2010-2012
ALSREB - Alabama SREB Student Organization	2010-2012

Committee Member

Information Technology Committee - <i>Graduate Student Representative</i>	2008-2010
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TECHNICAL SKILLS

Programming Languages:	Java, HTML, CSS, SQL, C++, Python, R
Operating Systems:	Windows, Mac OS, Unix (Linux)
Development Tools:	Eclipse, NetBeans, JEdit, Microsoft SharePoint, Notepad, Microsoft Visual Studio, JCreator, UltraEdit, JBuilder, Pico, RStudio
Data Analysis Tools:	Microsoft Excel, Minitab
Databases:	SQL Server, MySQL

MEMBERSHIP

Professional Memberships

IEEE - Institute of Electrical and Electronics Engineers (Professional Membership)	2025-Present
APHA – American Public Health Association (Professional Membership)	2020-Present
BDPA – Black Data Processing Associates (Professional Membership)	2018-Present
Toastmasters International – Member of MBC Toastmasters (Largo, MD)	2018-2023
ACM - Association for Computing Machinery (Professional Membership)	2017-Present
AAPHDCS - African American PhDs in Computer Science	2010-Present
ACM - Association for Computing Machinery (Student Membership)	2010-2012
SIGCSE - Special Interest Group in Computer Science Education (Student Membership)	2010-2012

Campus/University Memberships

Alabama SREB Student Organization – <i>Vice President</i>	2011-2012
Tide Together Mentoring Program for Graduate Students – <i>Peer Mentor</i>	2011-2012
Tide Together Mentoring Program for Graduate Students – <i>Mentee</i>	2009-2011
African American Graduate Student Association – <i>Treasurer</i>	2008-2009
University of Alabama Graduate Ambassador	2007-2011
University of Mississippi Black Student Union	2006-2007
IMAGE Newsletter Committee – <i>Co-Newsletter Editor</i>	2006-2007

AWARDS & HONORS

PowerLive 2023 – Faculty Award	
PowerLive 2022 – Faculty Award	2023
PowerLive 2021 - Faculty Award	2022
2020 SCMNS Deans Faculty Award - Excellence in Research	2021
PowerLive 2019 - Faculty Award	2020
SREB – Southern Regional Education Board Scholar	2009-2012
LSAMP - Bridge to the Doctorate Fellow	2007-2009
McNair - Ronald E. McNair Scholar	2006-2007
LSMAMP - IMAGE Scholar	2005-2007
UPE - Upsilon Pi Epsilon (UPE)	2005
First Year Latin Award	2004