

TEMPESTT NEAL

Curriculum Vitae

Research Expertise: *Biometric Recognition · Mobile Sensing in Interdisciplinary Applications · Applied Machine Learning · Authorship Attribution/Stylometry*

Asst. Professor
Dept. of Comp. Sci & Eng.
University of South Florida
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Education

- 2018 **PhD, Computer Engineering**, *University of Florida*, Gainesville, FL, USA
Research Areas: Mobile Biometrics, Behavioral Biometrics, Stylometry, Authorship Attribution
Developed Expertise: Pattern Recognition, Machine Learning, Data Science, Image Processing
Dissertation: "A Feasibility Study of Mobile Device Usage Data for Biometric Identification and Soft Biometric Classification"
- 2014 **Master of Science, Computer Science**, *Clemson University*, Clemson, SC, USA
- 2012 **Bachelor of Science, Computer Science (Minor in Mathematics)**, *South Carolina State University*, Orangeburg, SC, USA

Experience

- Aug. 2018 – **Assistant Professor**, *University of South Florida*
Present Tampa, FL USA
- Jan. 2015 – **Graduate Research Assistant**, *University of Florida*
Aug. 2018 Gainesville, FL USA
- Jan. 2013 – **Graduate Research Assistant**, *Clemson University*
Dec. 2014 Clemson, SC USA
- May 2013 – **Mobile Application Developer**, *Clemson University*
Dec 2013 Clemson, SC USA
- Fall 2012 **Graduate Teaching Assistant**, *Clemson University*
Clemson, SC USA
- Summer 2011 **Software Engineer Intern**, *Savannah River Remediation, LLC*
Aiken, SC USA
- Summer 2010 **Website and Marketing Intern**, *The Nature Conservancy*
Columbia, SC USA
- Summer 2009 **NSF HBCU-UP Intern**, *South Carolina State University*
Orangeburg, SC USA

Publications (*=publications with my students)

Book Chapters

- 2020 **Tempestt Neal** and Damon Woodard. Presentation attacks in mobile and continuous behavioral biometric systems. In *Securing Social Identity in Mobile Platforms*, pages 21–40. Springer, 2020.
- 2017 **Tempestt Neal**, Damon L Woodard, and Aaron D Striegel. Mobile device usage data as behavioral biometrics. *Mobile Biometrics*, volume 3, page 177. IET, 2017.

Journal Articles

- 2022 Sayde Leya King*, Jana Lebert, Lacey Anne Karpisek, Amelia Phillips, **Tempestt Neal**, and Kristin Kosyluk. Characterizing user experiences with an sms text messaging–based mhealth intervention: Mixed methods study. *JMIR Form Res*, volume 6, page e35699, May 2022.
- 2019 **Tempestt Neal** and Damon L. Woodard. You are not acting like yourself: A study on soft biometric classification, person identification, and mobile device use. *IEEE Transactions on Biometrics, Behavior, and Identity Science*, volume 1, pages 109–122, 2019.
- 2017 **Tempestt Neal**, Kalaivani Sundararajan, Aneez Fatima, Yiming Yan, Yingfei Xiang, and Damon Woodard. Surveying stylometry techniques and applications. *ACM Comput. Surv.*, volume 50. Association for Computing Machinery, nov 2017.
- 2016 **Tempestt Neal** and Damon L Woodard. Surveying biometric authentication for mobile device security. *Journal of Pattern Recognition Research*, volume 1, page 4, 2016.

In Conference Proceedings

- 2023 Nele Loecher, Sayde King*, Joseph Cabo, **Tempestt Neal**, and Kristin Kosyluk. Assessing the efficacy of a self-stigma reduction mental health program with mobile biometrics: Work-in-progress. In *17th IEEE International Conference on Automatic Face and Gesture Recognition (FG 2023)*, 2023.
- 2022 **Tempestt Neal**, Lisa Anthony, Shaun Canavan, Jaime Ruiz, Saandeep Aathreya, Meghna Chaudhary*, Yu-Peng Chen, Heting Wang, Rodrigo Calvo, Liza Jivnani, and Nicolas Ng Wai*. Toward understanding children’s use and understanding of user authentication systems: Work-in-progress. In *USENIX Symposium on Usable Privacy and Security (SOUPS)*, Boston, MA, USA, August 2022.
- 2022 Parush Gera* and **Tempestt Neal**. A comparative analysis of stance detection approaches and datasets. In *3rd Workshop on Evaluation and Comparison of NLP Systems at the 2nd Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics and the 12th International Joint Conference on Natural Language Processing*, 2022.
- 2022 Mohamed Ebraheem*, Sayde King*, and **Tempestt Neal**. Lip movement as a wifi-enabled behavioral biometric: A pilot study. In Constantine Stephanidis, Margherita Antona, and Stavroula Ntoa, editors, *HCI International 2022 Posters*, pages 473–480, Cham, 2022. Springer International Publishing.
- 2021 Khadija Zanna*, **Tempestt Neal**, and Shaun Canavan. Clustering of physiological signals by emotional state, race, and sex. In *Companion Publication of the 2021 International Conference on Multimodal Interaction, ICMI '21 Companion*, page 312–316, New York, NY, USA, 2021. Association for Computing Machinery.
- 2021 Matthew Sumpter* and **Tempestt Neal**. User perceptions of article credibility warnings: Towards understanding the influence of journalists and ai agents. In *MEDIATE 2021 in conjunction with the 15th International AAAI Conference on Web and Social Media (ICWSM)*, 2021.
- 2021 SK Rahatul Jannat, Diego Fabiano, Shaun Canavan, and **Tempestt Neal**. Subject identification across large expression variations using 3d facial landmarks. In Alberto Del Bimbo, Rita Cucchiara, Stan Sclaroff, Giovanni Maria Farinella, Tao Mei, Marco Bertini, Hugo Jair Escalante, and Roberto Vezzani, editors, *Pattern Recognition. ICPR International Workshops and Challenges*, pages 5–13, Cham, 2021. Springer International Publishing.
- 2020 **Tempestt Neal** and Ashokkumar Patel. A brief literature review and survey of adult perceptions on biometric recognition for infants and toddlers. In *2020 IEEE International Joint Conference on Biometrics (IJCB)*, pages 1–10, 2020.
- 2020 **Tempestt Neal** and Shaun Canavan. Mood versus identity: Studying the influence of affective states on mobile biometrics. In *2020 15th IEEE International Conference on Automatic Face and Gesture Recognition (FG 2020)*, pages 562–566, 2020.

- 2020 Sayde King*, Mohamed Ebraheem*, Khadija Zanna*, and **Tempestt Neal**. Learning a privacy-preserving global feature set for mood classification using smartphone activity and sensor data. In *2020 15th IEEE International Conference on Automatic Face and Gesture Recognition (FG 2020)*, pages 582–586, 2020.
- 2020 Parush Gera*, Nadia Thomas*, and **Tempestt Neal**. Hesitation while posting: A cross-sectional survey of sensitive topics and opinion sharing on social media. In *International Conference on Social Media and Society, SMSociety'20*, page 134–140, New York, NY, USA, 2020. Association for Computing Machinery.
- 2020 B. M. S. Bahar Talukder, Vineetha Menon, Biswajit Ray, **Tempestt Neal**, and Md Tauhidur Rahman. Towards the avoidance of counterfeit memory: Identifying the dram origin. In *2020 IEEE International Symposium on Hardware Oriented Security and Trust (HOST)*, pages 111–121, 2020.
- 2019 **Tempestt Neal** and Damon Woodard. Mobile biometrics, replay attacks, and behavior profiling: An empirical analysis of impostor detection. In *2019 International Conference on Biometrics (ICB)*, pages 1–8, 2019.
- 2019 **Tempestt Neal**, Md Asaduzzaman Noor*, Parush Gera*, Khadija Zanna*, and Gurpreet Kaptan*. Authenticating phone users using a gait-based histogram approach on mobile app sessions. In *2019 International Conference on Biometrics (ICB)*, pages 1–7, 2019.
- 2018 **Tempestt Neal** and Damon L. Woodard. On the use of mobile calling patterns for soft biometric classification. In *2018 IEEE 9th International Conference on Biometrics Theory, Applications and Systems (BTAS)*, pages 1–6, 2018.
- 2018 **Tempestt Neal** and Damon L. Woodard. A gender-specific behavioral analysis of mobile device usage data. In *2018 IEEE 4th International Conference on Identity, Security, and Behavior Analysis (ISBA)*, pages 1–8, 2018.
- 2018 **Tempestt Neal**, Kalaivani Sundararajan, and Damon Woodard. Exploiting linguistic style as a cognitive biometric for continuous verification. In *2018 International Conference on Biometrics (ICB)*, pages 270–276, 2018.
- 2018 Kalaivani Sundararajan, **Tempestt Neal**, and Damon Woodard. Style signatures to combat biometric menagerie in stylometry. In *2018 International Conference on Biometrics (ICB)*, pages 263–269, 2018.
- 2017 **Tempestt Neal** and Damon L. Woodard. Using associative classification to authenticate mobile device users. In *2017 IEEE International Joint Conference on Biometrics (IJCB)*, pages 71–79, 2017.
- 2017 **Tempestt Neal** and Damon L. Woodard. Spoofing analysis of mobile device data as behavioral biometric modalities. In *2017 IEEE International Joint Conference on Biometrics (IJCB)*, pages 62–70, 2017.
- 2015 **Tempestt Neal**, Damon L. Woodard, and Aaron D. Striegel. Mobile device application, bluetooth, and wi-fi usage data as behavioral biometric traits. In *2015 IEEE 7th International Conference on Biometrics Theory, Applications and Systems (BTAS)*, pages 1–6, 2015.

Other Articles (Non-Refereed)

- 2022 **Tempestt Neal**. Biometrics in 2021: A review of most cited research articles and related applications. <http://www.ieee-biometrics.org/images/pdf/Vol41-Newsletter.pdf>, 2022. *IEEE Biometrics Council Newsletter* Vol 41.
- 2021 **Tempestt Neal**. Continuous authentication with plurilock's defend persisted. <http://www.ieee-biometrics.org/images/pdf/Vol40-Newsletter.pdf>, 2021. *IEEE Biometrics Council Newsletter* Vol 40.
- 2021 **Tempestt Neal**. Biometrics in commercial vr. <http://www.ieee-biometrics.org/images/pdf/Vol39-Newsletter.pdf>, 2021. *IEEE Biometrics Council Newsletter* Vol 39.

- 2021 **Tempestt Neal**. Bias in commercial biometric applications. <http://www.ieee-biometrics.org/images/pdf/Vol38-Newsletter.pdf>, 2021. *IEEE Biometrics Council Newsletter* Vol 38.
- 2021 **Tempestt Neal**. <http://www.ieee-biometrics.org/images/pdf/Vol37-Newsletter.pdf>, 2021. *IEEE Biometrics Council Newsletter* Vol 37.
- 2020 **Tempestt Neal**. The role of biometrics amid global epidemics. <https://ieee-biometrics.org/images/pdf/Vol33-Newsletter.pdf>, 2020. *IEEE Biometrics Council Newsletter* Vol 33.
- 2020 **Tempestt Neal**. Remote education and biometrics: How online learning tools are using biometrics to enhance classroom instruction and an opportunity for improvement. <https://ieee-biometrics.org/images/pdf/Vol34-Newsletter1.pdf>, 2020. *IEEE Biometrics Council Newsletter* Vol 34.
- 2020 **Tempestt Neal**. Industry responses to face masks: Periocular recognition. <https://ieee-biometrics.org/images/pdf/Vol36-Newsletter.pdf>, 2020. *IEEE Biometrics Council Newsletter* Vol 36.
- 2020 **Tempestt Neal**. Face recognition beyond face masks. <https://ieee-biometrics.org/images/pdf/Vol35-Newsletter.pdf>, 2020. *IEEE Biometrics Council Newsletter* Vol 35.
- 2020 Sk R. Jannat, D. Fabiano, S. Canavan, and **Tempestt Neal**. Subject identification across large expression variations using 3d facial landmarks, 2020. arXiv:2005.08339.
- 2019 K. Zanna*, S. King*, **Tempestt Neal**, and S. Canavan. Studying the impact of mood on identifying smartphone users. <https://arxiv.org/abs/1906.11960>, 2019. arXiv:1906.11960.
- 2019 **Tempestt Neal**. Irisguard provides essential aid to refugees using non-invasive iris recognition. <http://ieee-biometrics.org/images/pdf/Vol31-Newsletter.pdf>, 2019. *IEEE Biometrics Council Newsletter* Vol 31.
- 2019 **Tempestt Neal**. The canadian down syndrome society partners with google to improve voice recognition. <http://ieee-biometrics.org/images/pdf/Vol32-Newsletter.pdf>, 2019. *IEEE Biometrics Council Newsletter* Vol 32.
- 2019 M. A. Noor*, G. Kaptan*, V. Cherukupally*, P. Gera*, and **Tempestt Neal**. A closer look at mobile app usage as a persistent biometric: A small case study. <https://arxiv.org/pdf/1912.11721.pdf>, 2019. arXiv preprint arXiv:1912.11721.

External Funding

McKnight Fellowship (Junior Faculty Fellowship)

- March 2022 – **Florida Education Fund, Inc., Role: PI**, Total=\$15,000, USF Portion=\$15,000
 April 2023 The FEF's Junior Faculty Fellowship Program promotes excellence in teaching and research by underrepresented minorities and women.
 Team: N/A

Up To Me: Erasing the Stigma of Mental Illness on College Campuses

- Sept. 2021 – **National Institute on Disability, Independent Living, and Rehabilitation Research, Role:**
 Aug. 2024 **Co-I**, Total=\$600,000, My Portion=\$136,763
 The Up to Me program aims to improve community living and participation of individuals with psychiatric disabilities. These outcomes are substantiated through passive sensing technologies to monitor human behavior.
 Team: **Dr. Kristin Kosyluk (PI)**, *University of South Florida*; **Dr. Mark Salzer**, *Temple University*; **Dr. Patrick Corrigan**, *Illinois Institute of Technology*

Speedlane: Social Media Micromoments

- Aug. 2021 – **Fanatics Apparel, LLC, Role: PI**, Total=\$25,000, USF Portion=\$25,000
 May 2023 Speedlane is a natural language processing platform which leverages social media content for informed decision making.
 Team: **Dr. Ken Christensen**, *University of South Florida*

Collaborative Research: SaTC: CORE: Medium: Toward Age-Aware Continuous Authentication on Personal Computing Devices (Includes an REU Supplement)

- April 2021 – **National Science Foundation, Role: PI**, Total=\$517,452, USF Portion=\$277,806
March 2024 This project advances understanding of how individuals of different age groups use and perceive existing authentication methods, especially concerning users' mental models and acceptance of continuous authentication.
- Team: **Dr. Shaun Canavan**, *University of South Florida*; **Dr. Lisa Anthony**, *University of Florida*; **Dr. Jaime Ruiz**, *University of Florida*

RAPID: Early Detection of Disease Outbreaks using Self-Organizing Patterns — COVID-19

- May 2020 – **National Science Foundation, Role: Co-PI**, Total=\$200,000, My Portion=\$28,997
Nov. 2022 This project develops a predictive modeling tool to visually represent the spread of COVID-19 or other potential pandemics utilizing artificial intelligence techniques to support data gathering, analysis and representation of the outcomes.
- Team: **Dr. Sylvia Thomas (PI)**, *University of South Florida*; **Dr. Alessandro Negro**, *GraphAware*

Internal Funding / Computing Credits

- June 2020 – **Social Media Trend Analysis to Explore Racial Disparities in the Treatment, Perceptions, and Tracking of COVID-19, PI**, Microsoft AI for Health, \$30,000 Microsoft Azure Computing Credits
May 2022
- June 2020 – **Exploring Racial Disparities in the Treatment, Perceptions, and Tracking of COVID-19 through Automated Stigma Detection and Sentiment Analysis of Social Media Data, PI**, USF COVID Rapid Response Program, \$25,000
May 2021
- April 2022 – **Transforming Multimodal Travel Behavior Data from an Open-Source Platform to Support Traffic Congestion Reduction Strategies, Co-PI**, National Institute for Congestion Research, \$90,000.
June 2023
- Sept. 2020 – **Game On: Grooming Black Youth for Leadership Excellence Using Video Gaming, Co-PI**, USF Understanding and Addressing Blackness and Anti-Black Racism in Local, National, and International Communities Research Program, \$30,000
Sept. 2021

Presentations

- 2021 – 2022 **Panelist** at “*Is CSE for Me?*” at the University of South Florida
- 2021 **Invited Talk** titled “*Towards Generalizable User Authentication Systems on Personal Devices*” at the Pacific Northwest National Laboratory (PNNL) Mathematics for Artificial Reasoning in Science Seminar
- 2021 **Invited Talk** titled “*Understanding Human Behavior with Personal Computing Devices – Mobile Mental Health Interventions: User Perceptions and Preliminary Results*” at Duke University
- 2019 **Panelist** for the FSU SSS-STEM Luncheon at University of South Florida
- 2019 **Invited Talk** titled “*Smartphones + X: Applications of Mobile Sensing*” at Berea College
- 2019 **Invited Talk** titled “*Mobile Biometrics: A Continuous Look at Identity*” at the J.P. Morgan Chase TechFest, Tampa, FL
- 2019 **Poster** titled “*Using Gait Recognition Techniques on Mobile App Sessions to Continuously Recognize Smartphone Users*” at the Cyber Florida Research Symposium, Tampa, FL
- 2019 **Poster** titled “*Mobile Biometrics, Replay Attacks, and Behavior Profiling: An Empirical Analysis of Impostor Detection*” at the 12th IAPR International Conference on Biometrics, Crete, Greece
- 2019 **Poster** titled “*Authenticating Phone Users Using a Gait-Based Histogram Approach on Mobile App Sessions*” at the 12th IAPR International Conference on Biometrics, Crete, Greece
- 2019 **Panelist** at “*CodeBreakHERS: Women in Cybersecurity*” at the University of South Florida
- 2019 **Panelist** at “*Exploring Identities in Engineering*” at the University of South Florida

- 2019 **Panelist** at “*Black Computer Scientist: Past, Present and You*” at the University of South Florida
- 2019 **Invited Course Lecture** titled “*An Overview of Mobile Biometrics*” at the University of South Florida
- 2018 **Panelist** at “*Life of a Research Professor*” at the IEEE-HKN Student Leadership Conference, University of Florida
- 2018 **Poster** titled “On the Use of Mobile Calling Patterns for Soft Biometric Classification” at the IEEE International Conference on Biometrics: Theory, Applications, and Systems, Los Angeles, CA
- 2017 **Poster** titled “Mobile Biometrics: Using Association Analysis for Mining Smartphone Usage Data” at the Florida Institute for Cybersecurity Research Conference, Gainesville, FL. **Best Poster Award**
- 2017 **Poster** titled “Mobile Biometrics: Using Association Analysis for Mining Smartphone Usage Data” at the Women in Hardware and Systems Security Workshop at the IEEE International Symposium on Hardware Oriented Security and Trust, McLean, VA
- 2017 **Poster** titled “Spoofing Analysis of Mobile Device Data as Behavioral Biometric Modalities” at the IEEE/IAPR International Joint Conference on Biometrics, Denver, CO
- 2017 **Poster** titled “Using Associative Classification to Authenticate Mobile Device Users” at the IEEE/IAPR International Joint Conference on Biometrics, Denver, CO
- 2015 **Poster** titled “Mobile device application, Bluetooth, and Wi-Fi usage data as behavioral biometric traits” at the IEEE 7th International Conference on Biometrics: Theory, Applications and Systems, Arlington, VA

Teaching

- Fall 2022 CAP 4103/6101 Mobile Biometrics
- Fall 2021 CAP 4103/6101 Mobile Biometrics
- Spring 2021 COP 3331 Object Oriented Software Design
- Fall 2020 CAP 4103/6101 Mobile Biometrics
- Spring 2020 COP 3331 Object Oriented Software Design
- Fall 2019 CIS 4930/6930 Biometric Authentication on Mobile Devices
- Spring 2019 COP 3331 Object Oriented Software Design
- Fall 2018 CIS 4930/6930 Biometric Authentication on Mobile Devices
- Fall 2018 CIS 6930 Seminar in Artificial Intelligence

Advising

Major Advisor

- Parush Gera (Ph.D., In progress), Cross-Target and Cross-Dataset Stance Detection
- Sayde King (Ph.D. Candidate, Expected 2024), Multimodal Deception Detection in Mental Health Applications
- Mohamed Ebraheem (Ph.D., In progress), IoT-Based Biometrics
- Meghna Chaudhary (Ph.D., In progress), Implicit Aspect Extraction
- Wilson Lozano (Ph.D., In progress), A.I. for Monitoring Symptoms of Dementia
- Steven Diaz (Ph.D., Spring 2022), “On the Reliability of Wearable Sensors for Assessing Movement Disorder-Related Gait Quality and Imbalance: A Case Study of Multiple Sclerosis”

Khadija Zanna (M.S., Spring 2020), "Toward Culturally Relevant Emotion Detection Using Physiological Features"

Supervisory Committee Member

Shen Lu (Ph.D., In progress), Committee Chair: Dr. Les Pieggl, GPU Accelerated Community Detection on Social Stream

Jennifer Adorno (Ph.D., In progress), Committee Chairs: Dr. Miguel Labrador and Dr. Sean Barbeau, Fostering Research and Innovation in Public Transportation: A Data Driven Approach

Sk Rahatul Jannat (Ph.D., In progress), Committee Chair: Dr. Shaun Canavan, Impact of Age on Expression Recognition

Laura Owczarek (Ph.D., In progress), Committee Chair: Dr. Amber Dumford, URM Women Faculty Hiring in Engineering

Md Adnan Zaman (Ph.D., 2022), Committee Chair: Dr. Robert Karam, Edge-AI ASICs

Antonio Laverghetta (M.S., 2021), Committee Chair: Dr. John Licato, Exploring the Use of Neural Transformers for Psycholinguistics

Ilyonna Tynes (M.S., 2021), Committee Chair: Dr. Shaun Canavan, Pain Recognition Performance on a Single Board Computer

Tyree Lewis (M.S., 2021), Committee Chair: Dr. Marvin Andujar, Adaptive Mobile EEG Noise Cancellation Using 2D Convolutional Autoencoders for BCI Authentication

Curtis Davis (M.S., 2021), Committee Chair: Dr. Paul Rosen, Using High Order Spanning Trees to Improve Dimensionality Reduction while Preserving Structure

Bharti Goel (Ph.D., 2020), Committee Chair: Dr. Sriram Chellappan, Algorithms to Profile Driver Behavior from Zero-Permission Embedded Sensors

Diego Fabiano (M.S., 2019), Committee Chair: Dr. Shaun Canavan, Multimodal Emotion Recognition using 3D Facial Landmarks, Action Units, and Physiological Data

Neilesh Sambhu (M.S., 2019), Committee Chair: Dr. Shaun Canavan, Detecting Digitally Forged Faces in Online Videos

Research Lab Volunteers and REU Students

2022 Kevin Antony, Undergraduate Student, NSF REU

2022 Orestes Bringas, Undergraduate Student

2020 – 2022 Nicolas Ng Wai, Undergraduate Student, NSF REU

2021 Frances Castro, Undergraduate Student

2021 Sue Dang, Undergraduate Student

2021 Dong Jun Kim, Undergraduate Student

2020 Ajay Chekuri, Master's Student

2019 – 2020 Lakshmi Angara, Undergraduate Student

2019 – 2020 Nadia Thomas, Undergraduate Student

2019 Matthew Sumpter, Undergraduate Student and USF CSE REU

2019 Valesia Davis, Undergraduate Student and USF CSE REU

2018 – 2019 Gurpreet Kaptan, Master's Student

2018 – 2019 Vineeth Cherukupally, Master's Student

Service

2023 **Doctoral Consortium Chair** at the IEEE/IAPR International Joint Conference on Biometrics

- 2023 **Organizer** of the First Workshop on Interdisciplinary Applications of Biometrics and Identity Science (InterID 2023) at the IEEE International Conference on Automatic Face and Gesture Recognition
- 2023 **Program Committee Member** for the IEEE Symposium on Security and Privacy
- 2022 – **Committee Member**, University of South Florida Computer Science and Engineering Dept.
- Current Faculty Search Committee
- 2022, 2021, **Invited Guest Speaker** at the CodeBreakHERS High School Girls Camp
2019
- 2022 **Program Committee Member** at the MEDiate 2022 Workshop at the International AAAI Conference on Web and Social Media
- 2022 **Program Committee Member** at the ACM International Conference on Multimodal Interaction
- 2022 **Associate Editor** of Track 4: Biometrics and Human-Computer Interaction at the IEEE/IAPR International Conference on Pattern Recognition
- 2020 – 2022 **Co-Organizer** of the Workshop on Applied Multimodal Affect Recognition at the 2020 IEEE International Conference on Automatic Face and Gesture Recognition, 2021 International Conference on Affective Computing and Intelligent Interaction, and 2022 IEEE/IAPR International Conference on Pattern Recognition
- 2021 – **Guest Editor** for the MDPI Electronics Special Issue on Recent Advances in Biometric Security
Current in IoT Based on Machine Learning
- 2020 – 2021 **Committee Member** of ACM's Diversity & Inclusion Committee on Systemic Change
- 2021 – **Committee Member** of the University of South Florida's College of Engineering Advisors of
Current Research Management Committee
- 2019 – **Associate Editor** for the IEEE Biometrics Council Newsletter
Current
- 2018 – **Committee Member**, University of South Florida Computer Science and Engineering Dept.
Current Broadening Participating in Computing Committee
- 2018 – 2022 **Committee Member**, University of South Florida Computer Science and Engineering Dept.
Graduate Affairs Committee
- 2020 – 2021 **Co-Organizer** of the Annual Nelms Workshop on Women in IoT: Leading Through Change held by the University of Florida Warren B. Nelms Institute for the Connected World
- 2021 **Technical Program Committee Member** for the First International Workshop on Responsible Pattern Recognition and Machine Intelligence at the IEEE/CVF International Conference on Computer Vision
- 2020 **Organizer** for the Special Session on Identity for Social Good at the IEEE/IAPR International Joint Conference on Biometrics
- 2019 – 2021 **IEEE WIE Society Liaison** for the IEEE Biometrics Council
- 2019 – 2020 **Program Committee Member** for The Bright and Dark Sides of Computer Vision: Challenges and Opportunities for Privacy and Security at the IEEE/CVF Conference on Computer Vision and Pattern Recognition
- 2020 **Program Committee Member** for the Workshop on Demographic Variation in the Performance of Biometric Systems
- 2019 **Session Chair** of Novel, Mobile, and Soft Biometrics at the IAPR International Conference on Biometrics

2018 – **Reviewer** for the National Science Foundation (2018 – 2021); IEEE Transactions on Multi-Scale Computing Systems (2018); IEEE Transactions on Biometrics, Behavior, and Identity Science (2018 – 2021); IEEE International Conference on Identity, Security, and Behavior Analysis (2018); IAPR International Conference on Biometrics (2019); ACM Computing Surveys (2019); IEEE International Conference on Biometrics: Theory, Applications, and Systems (2019); International Conference on Acoustics, Speech, and Signal Processing (2020); IEEE/IAPR International Joint Conference on Biometrics (2021 – 2022); ACM Transactions on Privacy and Security (2022)

Honors and Awards

2021-2022 McKnight Junior Faculty Fellow
2019 Apple Polishing Award, University of South Florida Ambassadors
2018 University of Florida Delores Auzenne Dissertation Award
2017 – 2018 National Science Foundation CyberCorps Scholarship for Service Fellowship
2012 – 2015 National Science Foundation Scholarship in Science, Technology, Engineering, and Mathematics
2012 South Carolina State University Computer Science Award
2008 – 2012 South Carolina State University Presidential Scholar

Professional Memberships

Association for Computing Machinery (ACM)
ACM Future of the Academy
Institute of Electrical and Electronic Engineers (IEEE)
IEEE Women in Engineering
IEEE Biometrics Council
Upsilon Pi Epsilon Computing and Information Disciplines
Kappa Mu Epsilon Mathematics Society

Miscellaneous

Press (September 28, 2021). Bary, Emily. MarketWatch. How the quirky ways you type, swipe and
Coverage behave can protect you online
Interview Bushra Anjum. 2020. A conversation with Tempestt Neal: continuous authentication methods
for mobile platforms. Ubiquity 2020, June, Article 1 (June 2020), 5 pages. doi: 10.1145/3404394.
Press (May 20, 2020), USF engineers awarded NSF grant to fight COVID-19 using big data. Tampa
Coverage Bay NewsWire.
Press (October 20, 2011), SC State University Senior Exclusive HBCU Recipient of Honor Scholarship .
Coverage South Carolina State University.