

TEMPESTT JA'NICE NEAL  
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Director, Cyber Identity and Behavior Research Lab  
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## Educational Background

**Ph.D. in Computer Engineering** *University of Florida, 2018*

Dissertation: *A Feasibility Study of Mobile Device Usage Data for Identification and Soft Biometric Classification*

**M.Sc. in Computer Science** *Clemson University, 2014*

**B.Sc. in Computer Science** *South Carolina State University, 2012*

## Professional Experience

- **Associate Professor**, Department of Computer Science and Engineering  
College of Engineering, University of South Florida (USF), USA, August 2024 - Present
- **Assistant Professor**, Department of Computer Science and Engineering  
College of Engineering, USF, USA, August 2018 - July 2024
- **Graduate Research Assistant**, Department of Electrical and Computer Engineering  
University of Florida, USA, Jan. 2015 – Aug. 2018
- **Graduate Research Assistant**, School of Computing  
Clemson University, USA, Jan. 2013 – Dec. 2014
- **Mobile Application Developer**, Creative Inquiry Program  
Clemson University, USA, May 2013 – Dec. 2013
- **Graduate Teaching Assistant**, School of Computing  
Clemson University, USA, Aug. 2012 – Dec. 2012
- **Software Engineer Intern**, Savannah River Remediation, LLC  
Aiken, SC USA, Summer 2011
- **Website and Marketing Intern**, The Nature Conservancy  
Columbia, SC USA, Summer 2010
- **NSF HBCU-UP Intern**, Department of Computer Science and Mathematics  
South Carolina State University, Orangeburg, SC USA, Summer 2009

## Research Publications

### Refereed Book Chapters

1. Neal, T., Woodard, D. (2020). "Presentation Attacks in Mobile and Continuous Behavioral Biometric Systems." In: Bourlai, T., Karampelas, P., Patel, V.M. (eds) *Securing Social Identity in Mobile Platforms*. Springer, Cham. [https://doi.org/10.1007/978-3-030-39489-9\\_2](https://doi.org/10.1007/978-3-030-39489-9_2).
2. Neal, T.J., Woodard, D.L., Striegel, A.D. (2017). "Mobile device usage data as behavioral biometrics." In *Mobile Biometrics*. IET Digital Library. [https://doi.org/10.1049/PBSE003E\\_ch7](https://doi.org/10.1049/PBSE003E_ch7).

## Refereed Journal Articles

1. S. L. King and T. Neal, "Applications of AI-Enabled Deception Detection Using Video, Audio, and Physiological Data: A Systematic Review," in *IEEE Access*, vol. 12, pp. 135207-135240, 2024, doi: 10.1109/ACCESS.2024.3462825.
2. A. Negro, F. Montagna, M. N. Teng, T. Neal, S. Thomas, and S. King, "Analysis of the Evolution of COVID-19 Disease Understanding Through Temporal Knowledge Graphs," *Frontiers in Research Metrics and Analytics*, vol. 8, 2023, doi: 10.3389/frma.2023.1204801.
3. M. Chaudhary, K. Kosyluk, S. Thomas, and T. Neal, "On the Use of Aspect-Based Sentiment Analysis of Twitter Data to Explore the Experiences of African Americans During COVID-19," *Scientific Reports*, vol. 13, 10694, 2023, <https://doi.org/10.1038/s41598-023-37592-1>.
4. K. A. Kosyluk, J. T. Tran, S. King, K. Torres, and T. Neal, "Preliminary Effectiveness Study of the Cope Notes Digital Mental Health Program," *Journal of Mental Health*, 2023, doi: 10.1080/09638237.2023.2182424.
5. S. L. King, J. Lebert, L. A. Karpisek, A. Phillips, T. Neal, and K. Kosyluk, "Characterizing User Experiences with an SMS Text Messaging-Based mHealth Intervention: Mixed Methods Study," *JMIR Formative Research*, vol. 6, e35699, May 2022, <https://doi.org/10.2196/35699>.
6. T. Neal and D. 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*, vol. 1, pp. 109–122, 2019.
7. T. Neal, K. Sundararajan, A. Fatima, Y. Yan, Y. Xiang, and D. Woodard, "Surveying Stylometry Techniques and Applications," *ACM Computing Surveys*, vol. 50, Nov. 2017, <https://doi.org/10.1145/3132039>.
8. T. Neal and D. L. Woodard, "Surveying Biometric Authentication for Mobile Device Security," *Journal of Pattern Recognition Research*, vol. 1, p. 4, 2016, <https://doi.org/10.13176/11.764>.

## Refereed Conference and Workshop Articles

1. S. Aathreya, M. Chaudhary, T. Neal and S. Canavan, "Multimodal Context-Based Continuous Authentication," 2023 IEEE International Joint Conference on Biometrics (IJCB), Ljubljana, Slovenia, 2023, pp. 1-10, doi: 10.1109/IJCB57857.2023.10448626. Acceptance rate: 36.2%
2. King, S.L., Johnson, N., Kosyluk, K., Neal, T. (2023). Therapist Perceptions of Automated Deception Detection in Mental Health Applications. In: Degen, H., Ntoa, S. (eds) Artificial Intelligence in HCI. HCII 2023. Lecture Notes in Computer Science(), vol 14050. Springer, Cham. [https://doi.org/10.1007/978-3-031-35891-3\\_6](https://doi.org/10.1007/978-3-031-35891-3_6).
3. Lozano, W., King, S., Neal, T. (2023). Observations of Caregivers of Persons with Dementia: A Qualitative Study to Assess the Feasibility of Behavior Recognition Using AI for Supporting At-Home Care. In: Gao, Q., Zhou, J. (eds) Human Aspects of IT for the Aged Population. HCII 2023. Lecture Notes in Computer Science, vol 14043. Springer, Cham. [https://doi.org/10.1007/978-3-031-34917-1\\_23](https://doi.org/10.1007/978-3-031-34917-1_23).
4. N. Loecher, S. King, J. Cabo, T. Neal and K. Kosyluk, "Assessing the Efficacy of a Self-Stigma Reduction Mental Health Program with Mobile Biometrics: Work-in-Progress," 2023 IEEE 17th International Conference on Automatic Face and Gesture Recognition (FG), Waikoloa Beach, HI, USA, 2023, pp. 1-6, doi: 10.1109/FG57933.2023.10042655.
5. 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.
6. Parush Gera and Tempestt Neal. A comparative analysis of stance detection approaches and datasets. In *Proceedings of the 3rd Workshop on Evaluation and Comparison of NLP Systems*, pages 58–69, Online, November 2022. Association for Computational Linguistics. <https://aclanthology.org/2022.eval4nlp-1.7.pdf>.

7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. 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.

23. 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.
24. 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.

## Non-Refereed Articles

1. Tempestt Neal. User perceptions of mobile-based biometrics for enhancing mobile health interventions. <https://www.ieee-biometrics.org/images/pdf/Vol142-Newsletter.pdf>, 2022. IEEE Biometrics Council Newsletter Vol 42.
2. Tempestt Neal. The emergence of “everyday use” biometrics. <https://www.ieee-biometrics.org/images/pdf/Vol143-Newsletter.pdf>, 2022. IEEE Biometrics Council Newsletter Vol 43.
3. Tempestt Neal. Biometrics in 2021: A review of most cited research articles and related applications. <http://www.ieee-biometrics.org/images/pdf/Vol141-Newsletter.pdf>, 2022. IEEE Biometrics Council Newsletter Vol 41.
4. Tempestt Neal. Continuous authentication with plurilock’s defend persisted. <http://www.ieee-biometrics.org/images/pdf/Vol140-Newsletter.pdf>, 2021. IEEE Biometrics Council Newsletter Vol 40.
5. Tempestt Neal. Biometrics in Commercial VR. <http://www.ieee-biometrics.org/images/pdf/Vol139-Newsletter.pdf>, 2021. IEEE Biometrics Council Newsletter Vol 39.
6. Tempestt Neal. Bias in Commercial Biometric Applications. <http://www.ieee-biometrics.org/images/pdf/Vol138-Newsletter.pdf>, 2021. IEEE Biometrics Council Newsletter Vol 38.
7. Tempestt Neal. Integrated Biometrics? Watson Mini Fingerprint Recognition Scanner to be Used for Identifying Victims of Natural Disasters. <http://www.ieee-biometrics.org/images/pdf/Vol137-Newsletter.pdf>, 2021. IEEE Biometrics Council Newsletter Vol 37.
8. Tempestt Neal. The role of biometrics amid global epidemics. <https://iee-biometrics.org/images/pdf/Vol133-Newsletter.pdf>, 2020. IEEE Biometrics Council Newsletter Vol 33.
9. Tempestt Neal. Remote education and biometrics: How online learning tools are using biometrics to enhance classroom instruction and an opportunity for improvement. <https://iee-biometrics.org/images/pdf/Vol134-Newsletter1.pdf>, 2020. IEEE Biometrics Council Newsletter Vol 34.
10. Tempestt Neal. Industry responses to face masks: Periocular recognition. <https://iee-biometrics.org/images/pdf/Vol136-Newsletter.pdf>, 2020. IEEE Biometrics Council Newsletter Vol 36.
11. Tempestt Neal. Face recognition beyond face masks. <https://iee-biometrics.org/images/pdf/Vol135-Newsletter.pdf>, 2020. IEEE Biometrics Council Newsletter Vol 35.
12. K. Zanna, S. King, T. Neal, and S. Canavan. Studying the impact of mood on identifying smartphone users. <https://arxiv.org/abs/1906.11960>, 2019. arXiv:1906.11960.
13. Tempestt Neal. Irisguard provides essential aid to refugees using non-invasive iris recognition. <http://iee-biometrics.org/images/pdf/Vol131-Newsletter.pdf>, 2019. IEEE Biometrics Council Newsletter Vol 31.
14. Tempestt Neal. The canadian down syndrome society partners with google to improve voice recognition. <http://iee-biometrics.org/images/pdf/Vol132-Newsletter.pdf>, 2019. IEEE Biometrics Council Newsletter Vol 32.
15. M. A. Noor, G. Kaptan, V. Cherukupally, P. Gera, and T. 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.

## Presentations

1. Poster titled “Fostering Autonomy: Guided Self-Directed Learning in Student-Centered Projects,” USF’s Center for Innovative Teaching and Learning (CITL) Celebration of Teaching, USF, 2024
2. Panelist, “Black Faculty Panel”, National Society of Black Engineers, USF, 2023
3. Panelist at “Is CSE for Me?”, USF, 2021, 2022
4. 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
5. Invited Talk titled “Understanding Human Behavior with Personal Computing Devices – Mobile Mental Health Interventions: User Perceptions and Preliminary Results” at Duke University, 2021
6. Panelist for the FSU SSS-STEM Luncheon at USF, 2019
7. Invited Talk titled “Smartphones + X: Applications of Mobile Sensing” at Berea College, 2019
8. Invited Talk titled “Mobile Biometrics: A Continuous Look at Identity” at the J.P. Morgan Chase TechFest, Tampa, FL, 2019
9. Poster titled “Using Gait Recognition Techniques on Mobile App Sessions to Continuously Recognize Smartphone Users” at the Cyber Florida Research Symposium, Tampa, FL, 2019
10. 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
11. 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
12. Panelist at “CodeBreakHERS: Women in Cybersecurity” at the USF, 2019
13. Panelist at “Exploring Identities in Engineering” at the USF, 2019
14. Panelist at “Black Computer Scientist: Past, Present and You” at the USF, 2019
15. Invited Course Lecture titled “An Overview of Mobile Biometrics” at the USF, 2019
16. Panelist at “Life of a Research Professor” at the IEEE-HKN Student Leadership Conference, University of Florida, 2018
17. 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, 2018
18. 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
19. 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
20. Poster titled “Spoofing Analysis of Mobile Device Data as Behavioral Biometric Modalities” at the IEEE/IAPR International Joint Conference on Biometrics, Denver, CO, 2017
21. Poster titled “Using Associative Classification to Authenticate Mobile Device Users” at the IEEE/IAPR International Joint Conference on Biometrics, Denver, CO, 2017
22. 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, 2015

# Funding

## External Funding

1. **SaTC: CORE: Small: Securing Wi-Fi Localization Systems in the Face of Evolving Attack Surfaces**  
PI: Yao Liu (USF), *Co-PI: Tempestt Neal*  
Funding Agency: National Science Foundation, \$600,000, 07/01/2024 — 06/30/2027
2. **Travel: NSF Student Travel Grant for 2023 IEEE International Joint Conference on Biometrics (IJCB 2023)**  
*PI: Tempestt Neal*  
Funding Agency: National Science Foundation, \$10,000, 08/2023 — 07/2024
3. **CAREER: Inclusive Cybersecurity Through the Lens of Accessible Identity and Access Management (I-CLAIM)**  
*PI: Tempestt Neal*  
Funding Agency: National Science Foundation, \$607,272, 07/2023 — 06/2028
  - REU Supplement: +\$2,774
4. **McKnight Junior Faculty Fellowship**  
*PI: Tempestt Neal*  
Funding Agency: Florida Education Fund, Inc., \$15,000, 03/2022 — 04/2023
5. **Up To Me: Erasing the Stigma of Mental Illness on College Campuses**  
PI: Kristin Kosyluk (USF), Co-I: Mark Salzer (Temple University), Co-I: Patrick Corrigan (Illinois Institute of Technology), *Co-I: Tempestt Neal*  
Funding Agency: National Institute on Disability, Independent Living, and Rehabilitation Research, \$136,763 (Total: \$600,000), 09/2021 — 08/2024
6. **Speedlane: Social Media Micromoments (Bulls Engineering Success Training Program Faculty Advisor)**  
*PI: Tempestt Neal*, Co-PI: Kenneth Christensen (USF)  
Funding Agency: Fanatics Apparel, LLC, \$25,000, 08/2021 — 05/2023
7. **Collaborative Research: SaTC: CORE: Medium: Toward Age-Aware Continuous Authentication on Personal Computing Devices**  
*USF PI: Tempestt Neal*, Co-PI: Shaun Canavan (USF), UF PI: Lisa Anthony (University of Florida), Co-PI: Jaime Ruiz (University of Florida)  
Funding Agency: National Science Foundation, \$261,966 (Total: \$517,452), 04/2021 — 03/2024
  - RET Supplement: +\$9,600
  - REU Supplement: +\$15,840
8. **RAPID: Early Detection of Disease Outbreaks Using Self-Organizing Patterns — COVID-19**  
PI: Sylvia Thomas (USF), Co-PI: Alessandro Negro (GraphAware), *Co-PI: Tempestt Neal*  
Funding Agency: National Science Foundation, \$200,000, 05/2020 — 11/2022

## Internal Funding and Computing Credits

1. **Empowering AI+X Research: Upgrading the GAIVI (GPU-based AI Video Intelligence) Cluster for Enhanced Interdisciplinary Exploration**  
Role: PI, USF RSCH Strategic Investment Pool, \$197,842, 07/2023 — 07/2024
2. **Social Media Trend Analysis to Explore Racial Disparities in the Treatment, Perceptions, and Tracking of COVID-19**  
Role: PI, Microsoft AI for Health, \$30,000 Microsoft Azure Computing Credits, 06/2020 — 05/2022

3. **Exploring Racial Disparities in the Treatment, Perceptions, and Tracking of COVID-19 through Automated Stigma Detection and Sentiment Analysis of Social Media Data**  
Role: PI, USF COVID Rapid Response Program, \$25,000, 06/2020 – 05/2021
4. **Transforming Multimodal Travel Behavior Data from an Open-Source Platform to Support Traffic Congestion Reduction Strategies**  
Role: Co-PI, National Institute for Congestion Research, \$90,000, 04/2022 – 06/2023
5. **Game On: Grooming Black Youth for Leadership Excellence Using Video Gaming**  
Role: Co-PI, USF Understanding and Addressing Blackness and Anti-Black Racism in Local, National, and International Communities Research Program, \$30,000, 09/2020 – 09/2021

## Advising

### Student Advisees

- Parush Gera, Ph.D. Candidate, Expected December 2025  
Dissertation Topic: *Cross-Target and Cross-Dataset Stance Detection*
- Sayde King, Ph.D. Candidate, Expected Summer 2025  
Dissertation Topic: *Multimodal Deception Detection in Mental Health Applications*
- Mohamed Ebraheem, Ph.D., Student, Expected Fall 2026  
Dissertation Topic: *IoT-Based Biometrics*
- Meghna Chaudhary, Ph.D. Candidate, Expected December 2025  
Dissertation Topic: *Implicit Aspect Extraction*
- Wilson Lozano, Ph.D. Student, Expected Fall 2026  
Dissertation Topic: *Cross-Device Behavioral Biometrics*
- Hoorad Abootalebi, Ph.D. Student, Expected Fall 2026  
Dissertation Topic: *Understanding the Role of User Diversity in Biometric Recognition*
- Steven Diaz, Ph.D., Spring 2022  
Dissertation Title: *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  
Thesis Title: *Toward Culturally Relevant Emotion Detection Using Physiological Features.*

### Other Lab Affiliates

1. Anam Ahmed (B.S., Cybersecurity), NSF Research Experience for Undergraduates, 2024
2. Joshua Brown (B.S., Cybersecurity), NSF Research Experience for Undergraduates, 2024
3. Georgia Ng Wai (B.S., Computer Science), Undergraduate Research Volunteer, 2023 – Present
4. Janelle Yearwood (Computer Science High School Teacher), NSF Research Experience for Teachers, 2023
5. Erika Samuel (B.S., Computer Science), NSF Research Experience for Undergraduates, 2023
6. Kevin Antony, NSF Research Experience for Undergraduates, 2022
7. Orestes Bringas, Undergraduate Research Volunteer, 2022
8. Nicolas Ng Wai, Undergraduate Research Volunteer, 2020-2022

9. Frances Castro, Undergraduate Research Volunteer, 2021
10. Sue Dang, Undergraduate Research Volunteer, 2021
11. Dong Jun Kim, Undergraduate Research Volunteer, 2021
12. Ajay Chekuri, M.S. Research Volunteer, 2020
13. Lakshmi Angara, Undergraduate Research Volunteer, 2019-2020
14. Nadia Thomas, Undergraduate Research Volunteer, 2019-2020
15. Matthew Sumpter, USF CSE Research Experience for Undergraduates, 2018
16. Valesia Davis, USF CSE Research Experience for Undergraduates, 2019
17. Gurpreet Kaptan, M.S. Research Volunteer, 2018-2019
18. Vineeth Cherukupally, M.S. Research Volunteer, 2018-2019

### **Supervisory Committees**

1. Benjamin Kreiger (M.S., in progress), Committee Chair: Dr. John Licato
2. Inflicting Denial-of-Service via Serverless Functions in the Cloud  
JunJie Xiong (Ph.D., in progress), Committee Chair: Dr. Yao Liu
3. Fostering Research and Innovation in Public Transportation: A Data Driven Approach  
Jennifer Adorno (Ph.D., in progress), Committee Chairs: Dr. Miguel Labrador and Dr. Sean Barbeau
4. URM Women Faculty Hiring in Engineering  
Laura Owczarek (Ph.D., in progress), Committee Chair: Dr. Amber Dumford
5. Evaluating Methods for Improving DNN Robustness Against Adversarial Attacks  
Laureano Griffin (M.S., 2023), Committee Chair: Hao Zheng
6. GPU Accelerated Community Detection on Social Stream  
Shen Lu (Ph.D., 2023), Committee Chair: Dr. Les PiegI
7. Multimodal Assessment of Human Behavior with Applications in Analysis of Autism Spectrum Disorder  
Sk Rahatul Jannat (Ph.D., 2023), Committee Chair: Dr. Shaun Canavan
8. Edge-AI ASICs  
Md Adnan Zaman (Ph.D., 2022), Committee Chair: Dr. Robert Karam
9. Exploring the Use of Neural Transformers for Psycholinguistics  
Antonio Laverghetta (M.S., 2021), Committee Chair: Dr. John Licato. <https://www.proquest.com/docview/2516821564?pq-origsite=gscholar&fromopenview=true>
10. Pain Recognition Performance on a Single Board Computer  
Ilyonna Tynes (M.S., 2021), Committee Chair: Dr. Shaun Canavan. <https://www.proquest.com/docview/2529201730?pq-origsite=gscholar&fromopenview=true>.
11. Adaptive Mobile EEG Noise Cancellation Using 2D Convolutional Autoencoders for BCI Authentication  
Tyree Lewis (M.S., 2021), Committee Chair: Dr. Marvin Andujar. <https://www.proquest.com/docview/2566086400?pq-origsite=gscholar&fromopenview=true>.
12. Using High Order Spanning Trees to Improve Dimensionality Reduction while Preserving Structure  
Curtis Davis (M.S., 2021), Committee Chair: Dr. Paul Rosen. <https://www.proquest.com/docview/2605303723?pq-origsite=gscholar&fromopenview=true>.



13. Algorithms to Profile Driver Behavior from Zero-Permission Embedded Sensors  
Bharti Goel (Ph.D., 2020), Committee Chair: Dr. Sriram Chellappan. <https://www.proquest.com/docview/2399882874?pq-origsite=gscholar&fromopenview=true>.
14. Multimodal Emotion Recognition using 3D Facial Landmarks, Action Units, and Physiological Data  
Diego Fabiano (M.S., 2019), Committee Chair: Dr. Shaun Canavan. <https://www.proquest.com/docview/2321832551?pq-origsite=gscholar&fromopenview=true>.
15. Detecting Digitally Forged Faces in Online Videos  
Neilesh Sambhu (M.S., 2019), Committee Chair: Dr. Shaun Canavan. <https://www.proquest.com/docview/2355993328?pq-origsite=gscholar&fromopenview=true>.

## Teaching

- CyS Biometrics, COP4931, USF, Spring 2024  
*Enrollment: 20, Course Evaluation Score: 4.7/5*
- Data Structures, COP4530, USF, Spring 2023  
*Enrollment: 80, Course Evaluation Score: 4.1/5*
- Mobile Biometrics, CAP4103 USF, Fall 2022  
*Enrollment: 40, Course Evaluation Score: 4.3/5*
- Mobile Biometrics, CAP6101 USF, Fall 2022  
*Enrollment: 18, Course Evaluation Score: 4.4/5*
- Mobile Biometrics, CAP4103, USF, Fall 2021  
*Enrollment: 40, Course Evaluation Score: 4.7/5*
- Mobile Biometrics, CAP6101, USF, Fall 2021  
*Enrollment: 10, Course Evaluation Score: 4.9/5*
- Object-Oriented Software Design, COP3331, USF, Spring 2021  
*Enrollment: 61, Course Evaluation Score: 4.4/5*
- Mobile Biometrics, CAP4103, USF, Fall 2020  
*Enrollment: 21, Course Evaluation Score: 4.2/5*
- Mobile Biometrics, CAP6101, USF, Fall 2020  
*Enrollment: 6, Course Evaluation Score: 5/5*
- Object-Oriented Software Design, COP3331, USF, Spring 2020  
*Enrollment: 47, Course Evaluation Score: 4.6/5*
- Biometric Authentication on Mobile Devices, CIS4930, USF, Fall 2019  
*Enrollment: 19, Course Evaluation Score: 4.9/5*
- Biometric Authentication on Mobile Devices, CIS6930, USF, Fall 2019  
*Enrollment: 12, Course Evaluation Score: 4.8/5*
- Object-Oriented Software Design, COP3331, USF, Spring 2019  
*Enrollment: 20, Course Evaluation Score: 4.1/5*
- Biometric Authentication on Mobile Devices, CIS4930/CIS6930, USF, Fall 2018
- Seminar in Artificial Intelligence, CIS6930, USF, Fall 2018

## Service

### Professional Service

- Professional Committees
  1. IEEE Biometrics Council Education Committee, 2024 - 2025
  2. ACM's Diversity and Inclusion Committee on Systemic Change, 2020 – 2021
  3. IEEE WIE Society Liaison, IEEE Biometrics Council, 2019 – 2021
- Editor
  1. Editorial Board, Scientific Reports, 2023 – Current
  2. Guest Editor, MDPI Electronics Special Issue on Recent Advances in Biometric Security in IoT Based on Machine Learning, 2021 – 2023
  3. Associate Editor, IEEE Biometrics Council Newsletter, 2019 – 2023
- Conference Committees
  1. Finance Co-Chair, 8th IEEE/IAPR International Joint Conference on Biometrics, September 15-18, 2024, Buffalo, NY
  2. Program Chair, 19th IEEE International Conference on Automatic Face and Gesture Recognition, May 12-16, 2025, Clearwater Beach, FL
  3. Area Chair, 18th IEEE International Conference on Automatic Face and Gesture Recognition, May 27-31, 2024, Istanbul, Turkey
  4. Doctoral Consortium Co-Chair, 7th IEEE/IAPR International Joint Conference on Biometrics, September 25-28, 2023, Ljubljana, Slovenia
  5. Program Committee, 44th IEEE Symposium on Security and Privacy, May 22-25, 2023, San Francisco, CA
  6. Program Committee, 24th ACM International Conference on Multimodal Interaction, November 7-11, 2022, Bengaluru, India
  7. Associate Editor, Biometrics and Human-Computer Interaction (Track 4), at the 26th IEEE/IAPR International Conference on Pattern Recognition, August 21-25, 2022, Montreal, Quebec
  8. Session Chair, Novel, Mobile, and Soft Biometrics, 12th IAPR International Conference on Biometrics, June 4-7, 2019, Crete, Greece
- Workshop Committees
  1. Organizer, *First Workshop on Interdisciplinary Applications of Biometrics and Identity Science* (InterID 2023), 17th IEEE International Conference on Automatic Face and Gesture Recognition, January 5-8, 2023, Waikoloa, Hawaii
  2. Program Committee, *MEDIATE 2022 Workshop*, 16th International AAAI Conference on Web and Social Media, June 6-9, 2022, Atlanta, GA
  3. Co-Organizer, *Workshop on Applied Multimodal Affect Recognition* (4 iterations): 18th IEEE International Conference on Automatic Face and Gesture Recognition (May 2024, Istanbul, Turkey); 26th IEEE/IAPR International Conference on Pattern Recognition (August 2022, Montreal, Quebec); 9th International Conference on Affective Computing and Intelligent Interaction (September 2021, Virtual); 15th IEEE International Conference on Automatic Face and Gesture Recognition (November 2020, Buenos Aires, Argentina)
  4. Co-Organizer (2 iterations), *Annual Nelms Workshop on Women in IoT, Leading Through Change*, University of Florida Warren B. Nelms Institute for the Connected World, September 22, 2021, October 12, 2020, Virtual

5. Technical Program Committee, *First International Workshop on Responsible Pattern Recognition and Machine Intelligence*, 18th IEEE/CVF International Conference on Computer Vision, October 11-17, 2021, Virtual
6. Program Committee (2 iterations), *The Bright and Dark Sides of Computer Vision, Challenges and Opportunities for Privacy and Security*, 33rd/32nd IEEE/CVF Conference on Computer Vision and Pattern Recognition, August 28, 2020, Glasgow, Scotland and June 16, 2019, Long Beach, CA
7. Program Committee, *Workshop on Demographic Variation in the Performance of Biometric Systems*, IEEE/CVF Winter Conference on Applications of Computer Vision, March 1, 2020, Snowmass, CO

- Reviewer

1. National Science Foundation (2018 – 2021, 2024)
2. IEEE Transactions on Multi-Scale Computing Systems (2018)
3. IEEE Transactions on Biometrics, Behavior, and Identity Science (2018 – 2021, 2024)
4. IEEE International Conference on Identity, Security, and Behavior Analysis (2018)
5. IAPR International Conference on Biometrics (2019)
6. ACM Computing Surveys (2019)
7. IEEE International Conference on Biometrics: Theory, Applications, and Systems (2019)
8. International Conference on Acoustics, Speech, and Signal Processing (2020)
9. IEEE/IAPR International Joint Conference on Biometrics (2021 – 2022)
10. ACM Transactions on Privacy and Security (2022)

## University Service

1. USF Computer Science and Engineering Dept. Faculty Search Committee, 2022 – Current
2. USF's College of Engineering Advisors of Research Management Committee, 2021 – Current
3. USF Computer Science and Engineering Dept. Broadening Participating in Computing Committee, 2018 – Current
4. USF Computer Science and Engineering Dept. Graduate Affairs Committee, 2018 – 2022

## Outreach

1. Guest Speaker, CodeBreakHERS High School Girls Camp, 2022, 2021, 2019

## 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

## Honors and Awards

- 2024 USF CSE Broadening Participation Award
- 2024 USF Faculty Outstanding Research Achievement Award
- 2023 Sloan Minority Ph.D. Program Faculty Mentor of the Year
- 2023 National Science Foundation CAREER Award
- 2021-2022 McKnight Junior Faculty Fellow
- 2019 USF Ambassadors Apple Polishing Award
- 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