Sanjana Mendu

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Education

Pennsylvania State University — **State College, Pennsylvania**
Ph.D. in Informatics | Advisor: Saeed Abdullah — 2020 -

University of Virginia — **Charlottesville, Virginia**
M.S. in Systems & Information Engineering | Advisor: Laura Barnes — May 2020

B.S. in Computer Science — May 2018

Research Experience

Graduate Research Assistant — **Pennsylvania State University**
Wellbeing Health and Innovation Lab (led by Dr. Saeed Abdullah) — 2020 -

- Investigating the utility of novel technological interventions to improve health and wellbeing at scale
- Develop interventions for a diverse range of mental health issues while leveraging the affordances of context-aware conversational agents

Graduate & Undergraduate Research Assistant — **University of Virginia**
Sensing Systems for Health Lab (led by Dr. Laura Barnes) — 2015 - 2020

- Led multiple research projects towards developing novel computational methods for inferring mental health from digital data streams
- Collaborated with experts in clinical and social psychology, environmental architecture, kinesiology, and other health-related domains.

NSF REU Intern — **University of Southern California**
Interaction Lab (led by Dr. Maja Matarić) — 2017

- Conducted exploratory research on socially assistive robotics
- Wrote and documented ROS code for operating a remote telepresence robot

Teaching Experience

IST 501: Interdisciplinary Research Design for Information Science — Fall 2022

IST 557: Data Mining — Fall 2021

IST 140: Intro to Application Development — Fall 2021

SYS 4581/6581: Mobile Sensing and Health — Fall 2020 - 2021
Delivered guest lectures on mobile sensing and mental health.

SARC 5400: Data Visualization — Spring 2018 - 2020
Full-time TA for 3 semesters with 90 students each. Responsible for weekly workshops and grading.

APMA 3080: Linear Algebra — Fall 2017

Professional Experience

NASA Langley Research Center — **Hampton, VA**
Research Directorate Intern — 2016

- Designed human-in-the-loop air traffic detection software for semi-autonomous aircraft system
- Co-developed decision-level Bayesian fusion algorithm that improved accuracy of object-tracking results from standard computer vision methods

Honors & Awards

CRA-WP Grad Cohort for Women 2021

AMIA WISH Mentorship Program 2020

Penn State University Graduate Fellowship 2020

Jordan Rednor Merit Scholarship 2020

Louis T. Rader Outstanding Graduate Student Award 2019, 2020
Recognized as top student among my cohort of 130 students.

Unity Student Scholarship for GDC 2018 2018
Scholarship to attend the Game Developers Conference (GDC) in San Francisco, CA

Publications

KE Daniel, **S Mendu**, A Baglione, L Cai, BA Teachman, LE Barnes, M Boukhechba. (2022). Cognitive Bias Modification for Threat Interpretations: Using Passive Mobile Sensing to Detect Intervention Effects in Daily Life. *Anxiety, Stress, and Coping*.

HJ Han, **S Mendu**, BK Jaworski, JE Owen, S Abdullah. (2021). PTSDialogue: Designing a Conversational Agent to Support Individuals with Post-Traumatic Stress Disorder. *In UbiComp-ISWC '21 Adjunct: Adjunct Proceedings of the 2021 ACM International Joint Conference on Pervasive and Ubiquitous Computing*.

S Mendu, S Sundar, S Abdullah. (2021). Context-Specific Usability Measures for Voice Assistants. *CHI 2021 Let's Talk About CUIs: Putting Conversational User Interface Design Into Practice Workshop*.

C Neale, A Griffiths, LS Chalmin-Pui, **S Mendu**, M Boukhechba, J Roe. (2021). Color Aesthetics: A Transatlantic Comparison of Psychological and Physiological Impacts of Warm and Cool Colors in Garden Landscapes. *Wellbeing, Space & Society*.

S Mendu, A Baglione, S Baee, C Wu, B Ng, A Shaked, G Clore, M Boukhechba, L Barnes. (2020). A Framework for Understanding the Relationship between Social Media Discourse and Mental Health. *Proceedings of the ACM on Human-Computer Interaction*.

H Rashid, **S Mendu**, KE Daniel, ML Beltzer, BA Teachman, M Boukhechba, LE Barnes. (2020). Predicting Subjective Measures of Social Anxiety from Sparsely Collected Mobile Sensor Data. *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*.

S Mendu, A Baglione, S Baee, LE Barnes. (2020). Redesigning the Quantified Self Ecosystem with Mental Health in Mind. *CHI 2020 Technology Ecosystems: Rethinking Resources for Mental Health Workshop*.

K Kowsari, KJ Meimandi, M Heidarysafa, **S Mendu**, LE Barnes, DE Brown. (2019). Text Classification Algorithms: A Survey. *Information*.

S Mendu, M Boukhechba, A Baglione, S Baee, C Wu, LE Barnes. (2019). SocialText: A Framework for Understanding the Relationship Between Digital Communication Patterns and Mental Health. *In ICSC '19: Proceedings of the 13th IEEE International Conference on Semantic Computing*.

NJ Napoli, MW Demas, **S Mendu**, CL Stephens, KD Kennedy, AR Harrivel, RE Bailey, LE Barnes. (2018). Uncertainty in Heart Rate Complexity Metrics caused by R-peak Perturbations. *Computers in Biology and Medicine*.

S Mendu, M Boukhechba, JR Gordon, D Datta, E Molina, G Arroyo, SK Proctor, KJ Wells, LE Barnes. (2018). Design of a Culturally-Informed Virtual Human for Educating Hispanic Women about Cervical Cancer. *In PervasiveHealth '18: Proceedings of the 12th EAI International Conference on Pervasive Computing Technologies for Healthcare*.

Posters & Presentations

S Mendu, A Baglione, S Baee, C Wu, B Ng, A Shaked, G Clore, MO Boukhechba, LE Barnes. (2020). SocialText: A Framework for Understanding the Relationship Between Digital Communication Patterns and Mental Health. *University of Virginia Engineering Research Symposium*.

S Mendu, A Baglione, S Baee, C Wu, B Ng, G Clore, MO Boukhechba, LE Barnes. (2019). Applying a Generalized Framework for Linking Private Social Media Discourse to Mental Health. *UVA Engineering Systems and Environment Distinguished Speakers Series*.

S Mendu, M Boukhechba, L Cai, M Gerber, LE Barnes. (2019). ReADI: Reliable Analytics for Disease Indicators. *UVA Engineering Systems & Environment Graduate Research Symposium*.

H Shen, **S Mendu**. (2017). Proposal for Cooperative Traffic Surveillance System. *NASA Internships, Fellowships & Scholarships Exit Presentation*.

S Mendu, LE Barnes, KJ Wells. (2017). Design of a Culturally-Informed Virtual Human for Educating Hispanic Women about Cervical Cancer. *ACM Capital Region Celebration of Women in Computing*.

Service & Leadership

Graduate Student Association in IST, Event Planner 2022 - 2023

Reviewer 2020 - 2021

CSCW '20, CHI '21, IEEE PervasiveComputing, PloS ONE, IEEE Access

Student Volunteer, CSCW 2020

Link Lab Student Committee, Student Representative 2019 - 2020

Association for Computing Machinery at UVA, Vice Chair 2017 - 2018

IEEE at UVA, President 2017 - 2018

UVA Machine Learning Club, Departments Chair 2017 - 2018

Student Game Developers at UVA, Internal Relations Chair 2017 - 2018