

AKIRI SURELY

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EDUCATION

University of Maryland, Baltimore County (UMBC)
Ph.D., Human Centered Computing
Specializations: Affective Computing

Expected May 2022

University of Maryland, Baltimore County
(UMBC)
M.S., Human Centered Computing

August 2018 - May 2020

United States International University, Kenya
(USIU-Africa)
B.Sc., Applied Computer Technology
Magna Cum Laude

May 2015 - July 2018

RESEARCH EXPERIENCE

Affective Behavior Interaction Lab, UMBC

Principal Investigator, The Impact of COVID-19 on First Responders and Family Project

June 2020- Present

- Designed data collection survey instrument to investigate the stress phenomenon in EMS providers.
- Analyzed qualitative research data seeking to draw attention to the adverse circumstances faced by EMS providers in the arduous fight against the Sar-Cov-2 pandemic. Aim to publish to Frontiers Health Psychology journal.

Research Assistant, Stress Reflection Project

January 2019– Present

- Designed study protocol for collecting affective nonverbal behavior data during paramedic training simulations.
- Developed a Stress Reflection Training System based on multimodal data collected from senior paramedic training simulations.
- Conducted pilot studies to evaluate the benefits and accessibility of Stress Reflection system. Submitted to ACII, 2021.
- Investigated physiological synchrony in teams during paramedic training simulation. ICMI'20 Late-Breaking Paper .

Research Assistant, Understanding Body Expressions Along the Affective Dimensions in Paramedic Training Simulation Project

July 2020– Present

- Evaluated and prepared software to rate body expressions along affective dimensions.
- Quantitative data analysis to identify associations and prediction among nonverbal behaviors. Aim to publish at ICMI, 2021.

Sensor Accelerated Intelligent Learning Lab, UMBC

Research Assistant, EL Project

November – July 2018

- Performed literature review to investigate haptic neurofeedback approaches to augment preconscious perception and emotion regulation among nurses.

- Developed computational model to study the cost of emotional labor.

Smart and Connected Health

August – September 2018

- Performed literature review on wearable devices best suited for breast cancer survivors sensor monitoring.
- Carried out quantitative data analysis on previously obtained questionnaire responses and sensor monitoring.
- Created patient groups based on emerging patterns of medication taking behaviors.

Undergraduate Research, USIU-Africa

• **Senior Project, DSLA**

January – May 2018

- Carried out a feasibility study on the adoption of an automated process for land acquisition in Delta State, Nigeria.
- Developed and deployed on GitHub a mobile application that displays available government owned lands, allows users book appointment and check availability.
- Developed and deployed on GitHub administrative dashboard for the DSLA mobile application that allows admin to check analytics on users, respond to appointments and handle surveyor data.

• **Africa's Talking Gaming Summer School:**

May – August 2017

- Planned the logistics for designing squash, memory, and snake games.
- Developed and deployed user interfaces for three levels of difficulty for the games designed.

INDUSTRY EXPERIENCE

Software Development Intern, *Unleashed Technologies*

June 2019 – July 2019

- Learnt Drupal content management system and applied knowledge in conjunction with object-oriented PHP to build client software.

Software Engineering Intern, *Interswitch Group Kenya*

May 2018 – July 2018

- Designed and prototyped user interface designs for ongoing company projects.
- Investigated and gave feedback on user experience of legacy system, Autopay.

SKILLS

• **Programming**

NASM Assembly language, PHP and SQL, Java, Web Front-end Development(HTML, CSS, XML and SCSS), and Interpreted Languages (Python, MATLAB, and JavaScript)

• **Design**

InVision, Inkscape, Sketch, Balsamiq

• **Databases**

MySQL, Microsoft SQL Server

• **Languages**

English, French, Swahili

AWARDS AND HONORS

- Anita Borg Masterclass Grant Recipient – **December 2020- December 2021**,
- University of Maryland Baltimore County Graduate Assistantship – **January 2019-Present**.
- United States International University-Africa, Dean's List– **April 2015- May 2018**.
- Presenter at the launch of the AppFactory Microsoft 4Afrika – **2018**.

PUBLICATIONS

Peer-Reviewed (Conference and workshop proceedings – Long papers)

- **Akiri, S.**, Misal, V., Taherzadeh, S., Williams, G., Mentis, H., Kleinsmith, A. (2021). Design and Evaluation of a Team Stress Reflection System for Paramedic Trainees. Proceedings of the ACM Conference on Designing Interactive Systems – ACII. (under review).

Peer-Reviewed (Conference proceedings – late breaking work)

- Misal, V., **Akiri, S.**, Taherzadeh, S., McGowan, H., Williams, G., Jenkins, L.J, Mentis, H., Kleinsmith, A. Multimodal Interaction (ICMI'20), Oct 25-29, Virtual event, Netherlands. ACM, New York, NY, USA, 5 pages. <https://doi.org/10.1145/3395035.3425250>

Peer-Reviewed (Journal proceedings)

- Taherzadeh, S., **Akiri, S.**, Misal, V., Williams, G., Mentis, H., Jenkins L.J, Kleinsmith, A. (2021). The Effect of Paramedic Trainee Gender on Performance and Communication Style in Simulation Training. Journal of Emergency Medicine. (under review).
- **Akiri, S.**, Misal, V., Taherzadeh, S., Williams, G., Mentis, H., Kleinsmith, A. (2021). A Qualitative Study of EMS Workers in the Era of COVID-19. Frontiers in Psychology. (in preparation).

ACADEMIC & PROFESSIONAL SERVICE

Reviewing

- Reviewer: Papers, ACM Conference on Human Factors in Computing Systems (CHI) – **2021**.
- Judge: Undergrad STEM Posters, Annual Louis Stokes Alliances for Minority Participation (LSAMP) USM Research Symposium - **2021**

Committees

- Organizing Committee: FIKA Meet-ups, Department of HCC, UMBC – **January 2020-Present**.
- Electoral Committee: Information Technology Club (IT Club), USIU-Africa – **September 2017 - May 2018**.

COMMUNITY SERVICE & OUTREACH

- Student Volunteer: Interactive Systems Research Center (ISRC) Relaunch, UMBC, February 2020.
- Student Volunteer: ACM Conference on Human Factors in Computing Systems (CHI) – **2021**.

MEDIA COVERAGE

- [Responses from EMS providers, family, friends sought for COVID-19 stress study](#), EMS1, August 2020.
- [UMBC researchers work to support first responders through NSF-funded stress-response technology](#), UMBC News, January 2020.
- [UMBC's Jiaqi Gong receives \\$1M NIH grant for wearable sensor to help breast cancer survivors maintain complex medication schedules](#), UMBC News, January 2020.
- [Tackling Healthcare with Blockchains: Launch of Microsoft 4 Afrika](#), USIU News, February 2018.

PROFESSIONAL AFFILIATIONS

- Graduate Women International (GWI).
- The Interactive Systems Research Center (ISRC).
- Center for Women in Technology (CWIT- UMBC).
- Summer School on Sensor-Based Behavioral Machine Learning (SAIL LAB - USC)
- AnitaB.org MasterClass.