

ELIZABETH ANKRAH

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EDUCATION

University of California Irvine, Irvine, CA
PhD in Informatics

Expected Graduation: May 2024
GPA: 4.00/4.00

George Mason University, Fairfax, VA
Bachelor of Science in Bioengineering, Concentration in Healthcare Informatics

May 2019
GPA: 3.43/4.0

HONORS AND AWARDS

- **Michigan Institute for Clinical & Health Research (MICHR) Summer Immersion Program, 2020**
- **University of California Irvine, Eugene Cota-Robles Fellowship, 2019**
- **iAAMCS scholarship to attend Tapia Conference, 2018**
- **George Mason University, Students' choice award for Undergraduate Research Colloquium, 2018**
- **Dean's list: George Mason University, Fall 2015, Spring 2016, Spring 2019**

PUBLICATIONS

Full Journal Full

- [J1] **Ankrah, E.A.**, Cibrian, F.L., Silva, L. M., Tavakoulnia A., Beltran J.A., Schuck S., Lakes, K.D, Hayes, G.R, (In Submission). Me My Health and Emotions: How Children with ADHD Understand Smartwatch Health Data for Emotional Competence. For submission to *ToCHI*

Extended abstracts, Workshop publications, and Doctoral consortiums

- [P3] Williamson, A., Goulet, S., Kameswaran, V., **Ankrah, E.A.**, Dillahunt, T., Veinot, T., (2020), Intermediary Practices for Low-Income Telehealth Users in the COVID-19 Era. In AMIA Annual Symposium Proceedings, WISH Workshop
- [P2] **Ankrah, E.A.**, Hayes, G.R. (2020) Exploring Privacy Concerns for Pregnant Expats in the US. Workshop: Networked Privacy - Privacy and Power. CHI' 20
- [P1] Figueiredo, M.C., Hussain, M.I., **Ankrah, E.A.**, Chen, Y. (2019). Powered by AI: Analyzing the Influence of Artificial Intelligence Claims in Fertility Self-Tracking. Workshop: Identifying Challenges and Opportunities in Human-AI Collaboration in Healthcare. In CSCW 2019

RESEARCH EXPERIENCE

***Graduate Student Researcher (GSR)**

GSR: Designing for AYA Childhood Cancer Survivors
University of California Irvine, Irvine, CA

February 2020 – Current

Children's Hospital of Orange County – After Cancer Treatment Survivorship Program, Orange, CA

- Collaborate with After Cancer Treatment Survivor Program director and USC researchers
 - Design interview session with adolescent and young adult childhood cancer survivors and care givers
 - Design virtual participatory design workshops with adolescent and young adult childhood cancer survivors
 - Develop understanding of barriers to health information behaviors and resources
 - Design and develop patient centric technology that improves access to information, mediates P-P communication and educates
- IRB recently accepted, currently, recruiting survivors*

GSR: Project simplify: Reducing complexity of Tele-Health systems for Low SES
University of Michigan – School of Information, Ann Arbor, MI

July 2020 – Current

- Created telehealth intervention protocol and prompts for phone
 - Conducted 2-week telehealth intervention with patients at Covenant Community Care Clinic in Detroit Michigan
- Currently, completing data analysis for paper submission*

GSR: Enhancing the Community Health Information Infrastructure
University of Michigan – Michigan Institute for Clinical & Health Research, Ann Arbor, MI

May 2020 – Current

- Code interviews using both deductive and inductive analysis procedures
- Develop theoretical model for understanding information behaviors for members of marginalized urban communities living with chronic disease.

- GSR: Fertility Tracking App assessing Trust in AI** June 2019 – Current
University of California Irvine, Irvine, CA
- Explore how AI claims influence users' understanding of algorithm feedback about their fertility data
 - Designed Between-Subject simulation with surveys
 - Surveys assessed participants willingness, trust, tracking behavior and interpretation of AI claims in fertility
 - Organize team of six undergraduates to create Between – Subject study simulation
- Currently, completing design and data collection*
- GSR: Wearable devices for children with ADHD for self-regulation** October 2019 – August 2020
University of California Irvine, Irvine, CA
- Implemented six-week field deployment of smart watch with interviews conducted every two weeks.
 - Designed interview session with children and parents to understand usability, adoption and data visualization for smart watches
 - Conducted two sessions of interviews with 10 children between the ages of 9 – 15 years old
 - Use inductive coding methods to analyze children recognition and interpretation of health information data visualization
- Second Paper in progress*
- GSR: ModEat** January 2020 – August 2020
University of California Irvine, Irvine, CA
- Conducted inductive coding analysis to understand user choice in modality and device in multimodal food tracking systems.
- Undergraduate Student Researcher: NSF #1834733 funded Life STEM EAGER project** December 2018 – June 2019
George Mason University, Fairfax, VA
- Use MATLAB to filter and process data for analysis
 - Collaborate with High School Teachers to determine trends and research paths to follow
 - Organize presentation to discuss findings with collaborators.
- Participation in project concluded following graduation, team was given developed code for analysis.*
- Senior Design: Control Interface for Autonomous Magnetically Stimulated Particles delivery** August 2018 – May 2019
George Mason University, Fairfax, VA
Weinberg Medical Physics, Rockville, MD
- Collaborate with team of four to create a fully autonomous magnetic particle delivery system
 - Designed and implemented layout and functionality of Graphic User Interphase
 - Led empirical evaluations of interface, by executing a cognitive walkthrough usability test to evaluate usability
 - Created a neural network using MATLAB to determine current output needed to manipulate the particle
- Prototype was successfully completed and given to sponsors at WMP.*
- Undergraduate Student Software Developer** September 2017 – January 2019
George Mason University, Fairfax, VA
- Developed an educational game on the microbiological interactions of HIV to improve student comprehension
 - Collaborated with graphic designers to design accurate depiction of characters for the HIV game
 - Programmed the game using Game Maker Studio 2 as well as Unity (C#)
 - Attend weekly meetings with different faculty advisers to discuss progress, and address challenges
 - Incorporate platforms such as Git environment, AWS, Codecommit, and Sourcetree to allow version control
- Big Data Research Experience for Undergraduate (REU)** June 2018 – August 2018
University of Minnesota-Twin Cities, Minneapolis, MN
- Completed data science bootcamp tasks by implementing Jupyter notebook to better understand Python
 - Filtered and processed Single Cell RNA sequence data with MATLAB to better organize data and understand outcomes
 - Tested accuracy and efficiency of newly developed unsupervised learning algorithm (scVDMC) to compare against competitors
 - Researched and analyzed multiple scholarly articles to increase understanding of the algorithmic results
 - Tested hypothesis by applying Clustergram in MATLAB bioinformatics toolbox to affirm algorithmic clusters and find novelty discovered by algorithm

PRESENTATIONS

2019 Competitive Edge Research Symposium

- Oral - *ASTHMAXcel: Using patients input to build mobile app to improve asthma outcomes in the Bronx*
- 2019 Capstone Day**
Poster - *Magneto Control Interface for Autonomous Delivery of Magnetically Stimulated Particles*
- 2019 Leadership Alliance National Symposium**
- 2018 UMN Summer Research Symposium**
Poster - *Multi-population clustering: Comparison of scVMDC algorithm to k-means*
- 2018 College of Science Undergraduate Research Colloquium**
Poster - *Hack – Creating an Educational Game Regarding the Complexities of the HIV Life Cycle*

LEADERSHIP EXPERIENCE

University of California Irvine

Associated Graduate Students October 2019 – Current

- School of Information & Computer Science representative
- Finance Committee member: Assess applications for graduate student applying for programs and travel grants
- Professional Development Committee member: Plan programs with the goal of increasing graduate student professional skills and resources
- Anteaer Recreational Center representative: Work to improve Graduate student representation and experience at Recreational center

Informatics Graduate Student Association (IGSA) - Treasurer October 2019 – Current

- Work with department manager to assess program funds for IGSA
- Attend quarterly board members meeting to discuss programs and budget for programs

George Mason University

Louis Stokes Alliance for Minority Participation January 2018 – May 2019

- Attended 2018 Research symposium, and presented research poster
- Participate in member programs and meetings

VOLUNTEER AND SERVICE

Tapia 2020 April 2020

- Reviewed a submission for Academic Panel and Workshops

CHI Late-Breaking Works January 2020

- Reviewed a submission

AMIA University of California (UC) Booth Staff November 17 – 19, 2019

- Promote UC at the AMIA annual conference

Black Girls Code November 2, 2019

Irvine, California

- Tech Assistant: taught young girls to use Tinkercad for 3D printing

Black Graduate Student Network: Graduate School Application Review October 30, 2019

- Review and provide feedback on graduate school and fellowship applications for undergraduate students

National Society of Black Engineers: George Mason University August 2015 – May 2019

- Volunteered in various activities such as the Regional Terror Zone Summit
- Participated on panel and toured High School Students around engineering school
- Participated as a member of the Pre-college initiative team, by discussing college and research to K-12 students

SKILLS

Foreign Languages: Proficient in Twi

Program language: Python, Unity (C#), C, C++, R, MySQL, Game Maker Studios 2, MATLAB

Software: Qt, Geneious, QIIME, Sourcetree, Zotero, Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Google Suite

HCI: Qualitative interviews, Inductive and deductive coding analysis, Survey design, Contextual Inquiry, Field-deployment

TRAINING AND CERTIFICATES

George Mason University

CITI Training

- Humanities Responsible Conduct of Research Course, Stage 1 – Report ID: 30446738, Expires: 05-Feb-2023

University of California Irvine

CITI Training

- Research and HIPAA Privacy Protections, Stage 1 – Record ID: 32253965, Expires: 28-Jun-2024
- Social and Behavioral Research Best Practices for Clinical Research, Stage 1 – Record ID: 35160841, Expires: 31-Jan-2023

Professional Development

- Activate to Captivate – 8-week public speaking program
- Mentoring Excellence Program – 8-week program on mentoring others.

Children’s Hospital of Orange County

CITI Training

- Social and Behavioral Research Best Practices for Clinical Research, Stage 2 - Record ID: 37214662, Expires: 20-July-2023
- Good Clinical Practice, Stage 1 – Record ID: 37214681, Expires: 26-Jun-2023
- CHOC Children’s Conflict of Interest, Stage 1 – Record ID: 37214682, Expires: 26-Jun-2023