

EDUCATION

Master of Engineering in Biomedical Engineering, Certification: Medical Device Design	Fall 2020 - Fall 2021
Duke University, Durham, NC - GPA 3.5	
Bachelor of Science in Biomedical Engineering	Spring 2017 - Fall 2020
Arizona State University, Tempe, AZ - Major GPA 3.73 Cum Laude	

PROJECTS, RESEARCH AND WORK

Calla Health Foundation	
Biomedical Engineer - Calla Health Foundation	Fall 2021 - Present
Designed portable testing platform for quality testing of devices, development of packaging, labeling, manual, etc. Material analysis for estimation of product life-cycle and resistance to reprocessing method	
Duke University	
Research Assistant - Global Women's Health Technologies Lab	Spring 2021 - Fall 2021
Created portable staining platform for cervical biopsy analysis	
Research Assistant - Eric S. Richardson Ph.D.	
~ Designing technology to tackle healthcare workers negative effects of long-term use of surgical masks	Fall 2020 - Fall 2021
~ Collaborated in the validation testing process of orthopedic surgical helmet manifold efficacy under COVID-19 pandemic, by designing, conducting, participating in trial and as an author of the paper for the Journal of Arthroplasty	Spring 2021 - Summer 2021
Fellow - Design+Health Program	Fall 2020 - Spring 2021
Worked with an interdisciplinary team to design and develop drainage system	
<u>US Provisional Patent</u> - Device and Method of Managing Fluid Collections 4-29-2021	
Advanced Manufacturing and Prototyping	Fall 2020
~ Speculum - Developed unique silicon, disposable, and adaptable to different body sizes speculum; inspired in stent deployment systems	
~ Mitral Valve Sewing Ring - 3D-custom-modeled sewing ring from MRI	
~ Cystoscope - Created a patient-friendly device for injection molding and large scale manufacturing	
Arizona State University	
Senior Capstone Project - At-home breast cancer screening device	Fall 2019 - Spring 2020
Prototyped and tested device for early stage tumor detection through impedance measurements of tissues present in the breast, for use between regular check-ups	
Instrumentation for Biomedical Engineers - High spinal cord injuries assistive technology	Fall 2019
Built device to allow these individuals use computers on their own. Included a headband and a mouthpiece, and a software that provided the cursor the function to clic and navigate the screen	
Microcomputing Engineering Project - Pen plotter machine	Spring 2019
Manufactured device to help individuals with motor disabilities write cursive through speech	
Rehabilitation Center Product Design - Vagus nerve stimulation device	Spring 2019
Designed portable non-invasive vagus nerve stimulator system for remote stroke patients' rehabilitation.	
Research Assistant, Locomotion Research Lab - Thurmon E. Lockhart Ph.D	Spring 2017 - Fall 2019
Contributed in gait data acquisition and analysis, and as a co-author in elderly fall risk assessment study	

LEADERSHIP, CERTIFICATIONS, AWARDS, AND EXPERIENCES

Duke University	
President, Engineering Master's Student Council	Fall 2021
Biomedical Engineering Intern, Calla Health Foundation	Summer 2021
Vice-President/Co-Founder, Engineering Master's Student Council	Fall 2020 - Spring 2021
Arizona State University	
Mentor, Biomedical Engineering Society	Spring 2017 - Spring 2019
Inflatable Birthing Cushion , Earned award for most interesting project for women in the DRC	Fall 2017
CITI Program , Research, Ethics and Compliance Training Completion	Fall 2017
Lima, Peru	
Medical Translator in Operation Room, Rotary Club; Operation Smile	2016

TECHNICAL SKILLS

PROTOTYPING AND ANALYTICS Slicer, SolidWorks, Shapr3D, Fusion360, DFM and DFA for Medical Devices, QuickField, FEA, CFD, SPSS, G*Power, Photoshop, FMEA, FMECA
ELECTRONICS LTSpice, LabView, Biosensors, Arduino, BJTs, MOSFETs, Integrated-Circuit Amplifiers, Filters, Analog and Digital Integrated Circuits
COMPUTATIONAL Machine Learning Techniques, Anaconda, MathCAD, MATLAB, C++, Python, Git, Software Unit Testing, Pycharm, VSC