

Duke University	Durham, NC
Master of Engineering in Biomedical Engineering	Pratt School of Engineering GPA 3.5
Certificate in Medical Device Design	Department of Biomedical Engineering
Arizona State University	Tempe, AZ
Bachelor of Science in Biomedical Engineering	Ira A. Fulton School of Engineering GPA 3.73 - Cum Laude

PROJECTS, WORK AND RESEARCH EXPERIENCES

Arlette Geller Medical Device Consulting®	
Biomedical Engineering Consultant	
Providing consulting services including concept development, detailed and system-level design, testing and refinement, QMS, etc.	2022 - Present
Women's Health	
Patent Pending Technology	EFS ID: 44679090
Developed adaptive and radially expanding disposable speculum. Designing clinical study for design validation and modification.	2021 - Present
Calla Health Foundation	
Junior Engineer	Completed engineering design, medical device validation studies, management on quality control of manufactured devices, written reports, data analysis and data dissemination, grant writing; and other.
Biomedical Engineering Intern	Designed portable testing platform for quality testing of device specifications, development of packaging, labeling, manual, etc. Material analysis for product life-cycle and reprocessing assessment.
Center for Global Women's Health Technologies	
Contractor	Development of validation platform, training materials, and quality testing and validation of Pocket Colposcope Technology for research collaborations and future commercialization.
Research Assistant	Created and optimized portable staining platform for cervical biopsy analysis upon user requirements and infrastructural constraints.

Duke University	
Eric S. Richardson Ph.D.	
Validation Study	Design, execution and publishing physiological and particulate validation studies for orthopedic surgical helmet manifold modification efficacy under COVID-19 circumstances.
Independent Study	Designed technology to tackle negative effects of long-term use from surgical masks by healthcare workers.
Design+Health Program	
Fellow	Worked with an interdisciplinary team to design and develop intermittent drainage system.
US Provisional Patent	Device and Method of Managing Fluid Collections 4-29-2021
Advanced Manufacturing and Prototyping	
Speculum	Developed unique silicon, disposable, and adaptable to different body sizes speculum.
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	
Capstone Project	
At-home Breast Cancer Screening Device	Developed portable device concept for early stage tumor detection through impedance measurements.
Instrumentation for Biomedical Engineers	
High Spinal Cord Injuries Assistive Technology	Built device to allow individuals use the computer on their own through a headband for screen navigation, and a mouthpiece as the click functionality.
Microcomputing for Biomedical Engineers	
Pen Plotter Machine	Manufactured device to help individuals write cursive through speech.
Product Design and Development III	
Vagus Nerve Stimulation Device	Designed portable non-invasive vagus nerve stimulator system for remote stroke patients' rehabilitation.
Locomotion Research Lab	
Research Assistant	Contributed in gait data acquisition, processing, analysis, and as a co-author for: Nonlinear Evaluation of Gait in Older Fallers and Non-Fallers

LEADERSHIP AND AWARDS

Duke University	
Master's of Engineering Hooding Ceremony Speech	
Duke University Engineering Master's Student Council	
President	
Vice-President and Founding Member	
Arizona State University	
Biomedical Engineering Society	Mentor
Most Interesting Project Award	Inflatable birthing cushion design for at-home labor assistance in the DRC.
CITI Program	Research, Ethics and Compliance Training Completion.
Rotary Club	Lima, PE
Operation Smile	Medical Translator at Operation Room

TECHNICAL SKILLS

Slicer, SolidWorks, Shapr3D, Fusion360, Blender, QuickField, FEA, SPSS, G*Power, Photoshop, FMEA, FMECA, QMS, LTSpice, LabView, Biosensors, Arduino, Integrated-Circuit Design, Machine Learning, Anaconda, MathCAD, MATLAB, C++, Python, GitHub, IEC 62304, Visual Studio Code
