# ARLETTE GELLER

*MEDICAL DEVICE CONSULTANT*

+1 (786) 797 7026 - Email - LinkedIn - Portfolio
**Languages:** Spanish, English, and Hebrew - **US Citizen**

## EDUCATION

**Duke University -** Durham, NC — ***2021***
**Master of Engineering in Biomedical Engineering -** GPA 3.5, Pratt School of Engineering
**Certificate in Medical Device Design -** Department of Biomedical Engineering

**Arizona State University -** Tempe, AZ — ***2020***
**Bachelor of Science in Biomedical Engineering -** Major GPA 3.73 Cum Laude

## PROJECTS, RESEARCH AND WORK

**Independent Work**

*Speculum Alternative* — ***2021 - Present***
Working on patent pending technology: Adaptive and radially expanding disposable speculum; and designing the clinical study for customer feedback to finalize device specifications

**Calla Health Foundation**

*Junior Engineer* — ***2022***
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 Engineer Intern* — ***2021***
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

**Duke University**

*Contractor - Center for Global Women's Health Technologies* — ***2022***
Development of validation platform, training materials, and quality testing and validation of Pocket colposcope device for research collaborations and future commercialization

*Research Assistant - Center for Global Women's Health Technologies* — ***2020 - 2021***
Created and optimized portable staining platform for cervical biopsy analysis upon user requirements

*Research Assistant - Eric S. Richardson Ph.D.*
★ Designed technology to tackle healthcare workers negative effects of long-term use of surgical masks — ***2020 - 2021***
★ Design of validation tests for 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 — ***2021***

*Fellow - Design+Health Program* — ***2020 - 2021***
Worked with an interdisciplinary team to design and develop drainage system
US Provisional Patent - Device and Method of Managing Fluid Collections 4-29-2021

*Advanced Manufacturing and Prototyping* — ***2020***
★ **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**

*Senior Capstone Project - At-home breast cancer screening device* — ***2019 - 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* — ***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

*Micro-computing Engineering Project - Pen plotter machine* — ***2019***
Manufactured device to help individuals with motor disabilities write cursive through speech

*Rehabilitation Center Product Design - Vagus nerve stimulation device* — ***2019***
Designed portable non-invasive vagus nerve stimulator system for remote stroke patients' rehabilitation

*Research Assistant, Locomotion Research Lab - Thurmon E. Lockhart Ph.D* — ***2017 - 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 — ***2021***
*Vice-President/Co-Founder,* Engineering Master's Student Council — ***2020 - 2021***

**Arizona State University**

*Mentor,* Biomedical Engineering Society — ***2017 - 2019***
*Inflatable Birthing Cushion,* Earned award for most interesting project for women in the DRC — ***2017***
*CITI Program,* Research, Ethics and Compliance Training Completion — ***2017***

**Lima, Peru**

*Medical Translator in Operation Room,* Rotary Club; Operation Smile — ***2016***

## TECHNICAL SKILLS

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