

Lauren E. Shaw

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EDUCATION

Master of Science: Biomedical Engineering, University at Buffalo, The State University of New York Exp. May 2024

Bachelor of Science: Biomedical Engineering, University at Buffalo, The State University of New York May 2023

- Cumulative GPA: 3.8/4.0
- Honors College Scholar

RELEVANT WORK EXPERIENCE/PROJECTS

ARMOR IIMAK – R&D Intern, *Amherst, NY* August 2023 – Present

- Leading testing initiatives to determine the cause of degradation in production of highly sensitive products
- Operates laboratory devices to test mechanical and chemical properties of products
- Reports findings of testing to a cross-functional team by utilizing data analysis of test results

Lemma Labs – Operations Intern, *Buffalo, NY* January 2023 – Present

- Developing pilot studies for in-vitro skin testing experiments with platforms while complying to regulations
- Assisting with organization and execution of IRB approved clinical trials to provide certified product feedback
- Performing laboratory analysis for customer order fulfillments and for manufacturer claim validations
- Sourcing, cataloging, and calibrating new laboratory equipment and setup to build lab testing capabilities

University at Buffalo, Biomedical Engineering – Student Research Assistant, *Amherst, NY* January 2022 – May 2023

Acoustic Hemodynamic Examination through AI Diagnosis (AHEAD) Research Project June 2022 – May 2023

- Developed prototype of device able to detect/alert patients of blood flow abnormalities for potential use in the U.S. Department of Defense for those likely to be impacted by sudden traumatic injuries
- Determined hardware of microphones sensors and microprocessors and designed proper wiring diagrams
- Compiled literature review on the history of wearable devices able to detect intracranial blood flow acoustics by comprehending and summarizing previous research articles

Oxygen Saturation (SpO2) Device Research Project January 2022 – May 2022

- Analyzed background research to understand implications of SpO2 mechanisms underlying wearable devices
- Investigated techniques/initiatives related to biomedical device research while complying with IRB guidelines
- Delivered extensive experimental design to compare accuracy of SpO2 in various devices

LEADERSHIP EXPERIENCE AND ACTIVITIES

Tau Beta Pi, Engineering Honor Society, Corresponding (External) Secretary September 2022 – Present

- Organizes documentation of events and communications between corporate organization

Society of Women Engineers (SWE), Treasurer/Vice President, Vice Chair September 2019 – Present

- Plans events in coordination with executive board and assures club requirements are maintained
- Authorizes club finances in funding meetings, events, and conferences

Engineering World Health (EWH), Vice President/President September 2019 – May 2023

- Managed club by presiding over and organizing meetings and assisting with all roles of executive board

SKILLS

- **Microsoft Office** (Word, PowerPoint, and Excel) for data analysis and effective communication
- **MATLAB** and associated toolboxes for circuit analysis, mathematical modeling, and image processing
- **Python** use with solving differential equations and programming applicable to mathematical applications
- **AutoCAD, Inventor, SolidWorks**, and **Fusion 360** for prototyping

CERTIFICATIONS

- Biomedical Research Investigators: IRB Training, CITI Program February 2022 – Present