

Ezekiel Bibbo

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PROFESSIONAL SUMMARY

Bioengineering graduate seeking a full time engineering role.

Creative and versatile designer dedicated to improving people's lives through innovative solutions. With expertise in problem-solving, collaboration, and adaptability, I am committed to always delivering my best effort.

EDUCATION

University of Pittsburgh, Swanson School of Engineering, Pittsburgh, PA

August 2020 - April 2024

Bachelor of Science in Bioengineering, Minor in Mechanical Engineering

SKILLS

CAD and Design Software: Autodesk Inventor, Fusion 360, Solidworks, Blender

Fabrication Techniques: 3D Printing, Laser Cutting, Vacuum Forming, Liquid Molding, Circuitry, Soldering

Programming: MATLAB, Python, R, Machine Learning

RELEVANT WORK EXPERIENCE

Accessible Prosthetics Initiative

April 2023 - April 2024

Research Assistant, Prosthetic Liner Engineer

- Collaborated with a team of three on a self-adjusting prosthetic liner project to improve amputee's comfort.
- Utilized Blender to create a woven and breathable liner model and collaborated with HP to print it.

XProjects

May 2023 - August 2023

Research Assistant, Design Lead

- Designed prosthetic devices via circuitry to alleviate phantom limb pain in amputees.
- Integrated vibration motors into prosthetic bands to be used in conjunction with prosthetic sockets.

Neuromotor Recovery and Rehabilitation Laboratory

May 2023 - August 2023

Research Assistant

- Utilized Transcranial Magnetic Stimulation (TMS) therapy to aid in the recovery of neuromotor function.
- Acquired motion capture data of the extension of stroke patients' digits before and after stimulation.

University of Pittsburgh Brain Institute

February 2023 - May 2023

Research Assistant

- Maintenance and conduction of experiments on cell lines related to Amyotrophic Lateral Sclerosis (ALS).
- Monitored the growth and health of cell cultures while performing various assays.

ACADEMIC PROJECTS

Bioengineering Senior Design

Fall 2023

- Engineered a user-controlled, adjustable footplate for Group 2 power chairs to enhance user independence and safety, incorporating feedback from healthcare professionals and iterative prototyping.

Medical Product Design

Spring 2023

- Created medical product prototypes such as blood pressure monitors and prosthetic feet using learned expertise and technical skills like advanced modeling, molding, and vacuum forming.

Human Brain Connectivity Lab

Fall 2021

- Utilized DSI Studio for brain MRI tractography, employing machine learning models in R to assess neurostructural damage and predict traumatic brain injury.

Computer Applications in Bioengineering

Fall 2021

- Collaborated with a team of four to design, test, and refine an eye-mapping device using MATLAB, breadboard circuitry, and an external DAQ.

EXTRACURRICULAR ACTIVITIES

Accessible Prosthetics Initiative (API) Club

Production Team Lead | Spring 2023

Biomedical Engineering Society (BMES) Club

Member | Fall 2021