Ezekiel Bibbo

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PROFESSIONAL SUMMARY

Bioengineering graduate seeking a full time engineering role.
I am a 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

Bachelor of Science in Engineering | Bioengineering, Minor in Mechanical Engineering *August 2020 - April 2024*

RELEVANT WORK EXPERIENCE

Accessible Prosthetics Initiative *April 2023 - April 2024*

Research Assistant, Prosthetic Liner Engineer

- Collaborated with a team 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 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 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*

SKILLS

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

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

Programming: MATLAB, Python, R