Ezekiel Bibbo

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"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 making a positive impact and consistently delivering my best effort in any role."

EDUCATION

University of Pittsburgh, Swanson School of Engineering

Pittsburgh, PA

Bachelor of Science in Engineering

Expected Graduation: April 2024

Bioengineering, Minor in Mechanical Engineering

WORK EXPERIENCE

Accessible Prosthetics Initiative

April 2023 - Present

Research Assistant, Prosthetic Designer

• Collaborated with a team on a self-adjusting prosthetic liner project to improve amputee's comfort.

XProjects May 2023 - August 2023

Research Assistant and Design Lead

• Integrated innovative vibration systems into prosthetic systems to alleviate phantom limb pain in amputees.

Neuromotor Recovery and Rehabilitation Laboratory

May 2023 - August 2023

Research Assistant

• Utilizing Transcranial Magnetic Stimulation (TMS) therapy to aid in the recovery of neuromotor function.

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).

ACADEMIC PROJECTS

Medical Product Design

Spring 2023

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

Statics & Mechanics of Materials

Fall 2021

 As Engineering Manager, led a team to design and test various bridge models using SolidWorks and Truss Analysis methods to determine the optimal bridge structure.

Flower Microbiome Lab Fall 2021

• Collected, cultivated, and tested bacterial samples from the local environment and performed cell assays before donating findings to research.

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.

ACTIVITIES

Accessible Prosthetics Initiative (API), Production Team Lead

 Managing project development, volunteers, and fostering collaboration on prosthetic device design and production.

SKILLS

CAD and Design Software: Autodesk Inventor, Fusion, Solidworks

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

Programming: Intermediate proficiency in MATLAB and Python