

Elmaz Abliazova

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EDUCATION

Case Western Reserve University

Bachelor of Science in Biomedical Engineering | GPA: 3.65/4.00

Expected May 2028

Track: Biomechanics

Relevant Coursework: Mechanical Manufacturing, Statics & Strength Materials, Physiology-Biophysics I, Foundations of Engineering and Programming, Programming in Java, Chemistry of Materials.

SKILLS & LANGUAGES

Technical Skills: SolidWorks, 3D slicing software, 3D printing, laser cutting, mill, lathe, MATLAB, Java, VCarve, CorelDraw, CNC router, woodshop, vinyl cutting, rapid prototyping, and thermal analysis

Languages: Ukrainian(Native), English(Fluent), Turkish(Novice)

EXPERIENCE

Sears think[box] Makerspace

Nov 2024 - Present

Outreach Student Technician

Cleveland, OH

- Led over 30 trainings on safe and effective use of various makerspace equipment, including 3D printers and laser cutters.
- Utilized various 2D and 3D design software applications daily (e.g., CAD, vector graphics) to prepare and modify files for programming purposes.
- Designed and facilitated hands-on workshops for students ranging from K–12 to college level.
- Fabricated MakerCard components on the CNC router as part of a collaboration between think[box] and Gratnells, handling production and post-processing.

Global Health Design Collaborative - Vaccine Carrier Sub-Team

Sep 2024 - Present

Student Member | Case Western Reserve University

Cleveland, OH

- Worked on the design of a vaccine carrier workstation to support more sanitary field operations in rural Uganda.
- Created 3D models of the workstation using SolidWorks to guide fabrication and assembly.
- Conducted thermal analysis to collect data and compare prototype versions after improving thermal insulation.
- Researched WHO testing protocol for vaccine carriers and summarized procedures for future testing phases.
- Co-presented project at the BMES(Biomedical Engineering Society) 2025 Annual Conference.

Biodesign Club

Sep 2023 - Present

Founder & President | Case Western Reserve University

Cleveland, OH

- Led a five-member executive board and a general body of 25+ members, guiding projects in sustainable biomaterials.
- Established the club's research and workshop infrastructure, overseeing multiple active projects for consumer and medical applications.
- Designed and facilitated hands-on workshops that train members in biomaterial synthesis and small-scale fabrication.
- Conducted laboratory preparation and testing of biomaterials, assessing water solubility and durability.
- Previously founded and led the Biodesign Club at UWCM (The Netherlands), coordinating research on fruit peel-derived bioleather and its potential applications.

Protez Hub

Oct 2025 - Present

Protez Hub CONNECT | Remote

Maastricht, The Netherlands

- Coordinate the development of Protez Hub CONNECT, an international knowledge-exchange program linking U.S. upperclassmen and master's students with prosthetics and orthotics master's students at four Ukrainian medical universities.
- Serve as the primary facilitator between U.S. and Ukrainian partners, supporting communication and program planning.
- Develop program structures and engagement activities that support knowledge sharing in the fields of prosthetics, orthotics, and biomechanics.
- Contribute to the goals of strengthening international collaboration and advancing Ukraine's prosthetics and rehabilitation system.