

Jackson Laub

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Education

University of Maryland – College Park, MD

Bachelor of Science, Bioengineering

May 2026

GPA – 3.30

- Recipient of the President's Scholarship at the University of Maryland
- Recipient of UMD 2024-2025 Education Abroad Scholarship

Relevant Coursework: Biomedical Electronics & Instrumentation, Cell Biology and Physiology, Biomaterials, Modeling Physiological Systems, Biocomputational Methods, Bio-stat Experimental Design & Data, Technical Writing

Technical Projects

Blood Filtration for Autologous Transfusion

College Park, MD

BIOE 485 & 486: Capstone

September 2025 – May 2026

- Collaborated with a five-member team to develop and test a blood-filtration process intended to reduce contamination while preserving red-blood-cell integrity
- Conducted a literature review on blood filtration, developed test procedures, assembled prototypes, utilized SolidWorks CAD and Flow Simulation to build a fluid dynamic model
- Conducted prototype testing in the U.S. Air Force Advanced Resuscitation for Combat Casualty Care Laboratory while adhering to laboratory safety requirements
- 3D printed adapters to allow the filter to work in conjunction with medical tubing without leakage

Global Health Design Project

College Park, MD

BIOE 415: Engineering Design for Global Health

September 2024 – December 2024

- Researched current Alzheimer's diagnostic and treatment technologies, analyzing design constraints and limitations
- Collaborated with 1 partner to design a new diagnostic, using CAD software for prototyping
- Developed and presented a comprehensive clinical trial plan to evaluate the technology's efficacy

Bioimaging for Traumatic Brain Injury

College Park, MD

BIOE 420: Bioimaging

September 2024 – December 2024

- Developed a hybrid CT/PET imaging system to enhance both structural and functional insights for improved diagnostic accuracy
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Professional Experience

Town Pub

Bloomfield, NJ

Restaurant Server

January 2026 - Present

- Delivered high-quality customer service in a fast-paced, team-oriented environment while balancing multiple responsibilities under pressure
- Demonstrated problem-solving and adaptability by responding quickly to customer needs

Universidad Carlos III de Madrid

Leganés, Spain

Research Assistant Intern

February 2025 – May 2025

- Conducted laboratory research supporting development of a wearable nano-biosensor for hormone monitoring
 - Investigated conversion of hormone concentrations into measurable electrochemical signals and analyzed experimental data to evaluate sensor performance
 - Implemented gold nanoparticles into the sensor design to improve sensitivity and biocompatibility
 - Collaborated with another researcher to troubleshoot experimental challenges, communicate findings, and refine the prototype
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Skills

Biomanufacturing and Laboratory:

Wet-lab techniques, laboratory safety, experimental protocols, protein isolation, gel electrophoresis, spectrophotometry, biosensors, electrochemical analysis, mammalian cell biology, upstream and downstream processing, monoclonal antibodies

Engineering and Software:

Prototyping, data analysis, SolidWorks (CAD & Flow Simulation), clinical research, Java, Python, bio-imaging, Microsoft Office, electronic circuit design, 3D Printing