

Thaddeus Mahfouz

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Disciplined and proactive Biomedical Engineering student with experience in communication, teamwork, and extensive lab-work hoping to gain professional experience in the pharmaceutical or biotechnology industries.

EDUCATION

Georgia Institute of Technology, Atlanta, GA – *B.S Biomedical Engineering Candidate* exp. grad May 2025

- Current GPA: 4.00
- Expected Graduation Term: Spring 2025.
- Relevant Coursework: Intro to MATLAB, Intro to Material Science, Survey of Organic Chemistry, Linear Algebra, & Bioengineering Statistics.
- Extracurriculars: Member of the Student Alumni Association, Biomedical Engineering Society, and First-Year Activities Board.

Millburn High School, Millburn, NJ – *HS Diploma* September 2018 - June 2022

- 4.333 Final GPA.
- Graduated High Honors (Top 10% of my class).
- Scored a 5 on 15 AP exams, most notably the Biology, Chemistry, & Physics C: E&M exams.
- Extracurriculars: Science Olympiad, Student Liaison, Peer Leaders

SKILLS

Programming/Software: Matrix Laboratory (MATLAB), Microsoft Office, Google Drive, Excel, ImageJ,

Communication: Presentations, Essays, Reading Research Papers

Languages: NJ Seal of Biliteracy in English & French

PROJECTS

Bias in Medical Device Design Project January 2023 – May 2023

- Analyze how the design of epinephrine autoinjectors (eg: EpiPen) can harm children that need to use this product.
- Propose creating a one-time use patch to minimize pressure variations when using the epinephrine autoinjectors to minimize the harmful side effects.
- Create a case study, story, proposal, and pitch highlighting the bias in the EpiPen design and how our solution minimizes this bias.

Introduction to Biomedical Engineering Project August 2022 – December 2022

Innovation of the level four surgical gown using the FDA Design Process:

- Analyzed & tested feasibility of using normal U.S Fashion size measurements for surgical gown.
- Performed internet research to understand the FDA and ISO regulations on these surgical gowns.
- Crafted a problem statement and a user story using needs of stakeholders that were not met in the product.

EXPERIENCE

Single Cell Biotechnology Lab, Atlanta, GA – *Undergraduate Research Assistant* November 2022 – Present

- Work with Ms. Mayar Allam on her research into how the presence of immune cells affects the metabolic pathways of A549 (human lung cancer) cells.
- Culture and passage A549 cells.
- Fixate, IF stain, image, and analyze both A549 cells and CD8+ T-Cells.
- Analyze scientific papers on oncology and other relevant topics.

Haagen-Dazs, Millburn, NJ – *Team Leader* July 2020 – July 2022

- Developed patience and always communicated politely with customers, coworkers, and supervisors.

Liberty Science Center, Jersey City, NJ – *Volunteer* September 2018 – March 2020

- Ensured that museum exhibits were clean and orderly.
- Interacted with guests and hosted live events on the brain and virology.
- Ran the 3D Pen stand at major corporate-sponsored events.

ACCOMPLISHMENTS

- **Faculty Honors:** Received a 4.00 in a semester. Awarded Fall '22 and Spring '23.
- **USA Biology Olympiad Semifinalist:** Scored in the top 10% of students who took the USA Biology Olympiad qualifying exams during the 2019-2020 season.