

Yehudah N. Marcus

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EDUCATION

Technion Israel Institute of Technology, Haifa, Israel August 2021 - August 2025
Bachelor of Science in Mechanical Engineering - cum laude

- GPA: 90.8
- Relevant Coursework: Computational Fluid Dynamics, Heat Transfer, Fluid Mechanics, Microfabrications, Advanced Solidworks, Solid Mechanics 2, Applied Machine Learning, Dynamics of Vibrations, Numerical Analysis, Dynamics

WORK EXPERIENCE

Teaching Assistant, *Technion Israel Institute of Technology*, Haifa, Israel May 2024 - March 2025

- Assisted 3rd-year mechanical students in understanding the applications of different manufacturing tools, processes, and machines, as a 4th-year student
- Collaborated with the instructor to prepare and organize coursework for the Manufacturing Processes Course, including creating test questions, grading assignments, offering feedback, and holding office hours

Tutor, *Technion Israel Institute of Technology*, Haifa, Israel October 2024

- Taught a student from the class of 2022 methods for numerically solving ordinary differential equations (ODE's), derivatives, integrals, and interpolations
- Assisted student with exam preparation for Moed B and improved his grade by approximately 30 points

Director of Technology, *OptimumHMG*, Boca Raton, Florida November 2023 - February 2024

- Created business intelligence tools to help visualize key metrics for hospitals and medical facilities throughout the United States
- Provided real-time return on investment data to support high level marketing strategies

Director of Information Technology, *New You LLC*, Boca Raton, Florida November 2023 - December 2023

- Managed the development of the company's website, enhancing the user GUI and overall user experience
- Developed marketing analytical assistant tools to optimize marketing strategies and enhance decision-making, providing decision support services and real-time ROI analytics

PROFESSIONAL EXPERIENCE

Biodesigner, *Biodesign Israel Innovation Program*, Haifa, Israel November 2024 - October 2025

- Collaborated with a multidisciplinary team to identify unmet clinical needs in pediatrics, focusing on diagnostic challenges in primary care settings
- Conducted market research and assessed clinical feasibility for innovative pediatric solutions, integrating user feedback, stakeholder input, and competitive analysis

Research Assistant, *Biorobotics and Biomechanics Lab at the Technion*, Haifa, Israel September 2023 - February 2024

- Conducted research and developed a haptic device designed to enhance the accuracy of nerve tests by creating an unbiased machine that reduces false positives and minimizes unnecessary surgeries
- Worked in a team of 2 to design iterations to the device according to specifications from overseeing physicians

LEADERSHIP & ACTIVITIES

Investment Team Leader, *TAMID Group*, Haifa, Israel March 2024 - July 2025

- Led the finance team in conducting an industry overview, including market research and technical analysis of Israel-based companies
- Identified emerging market trends, evaluated competitive landscapes, and assessed their distinctive positions within the dynamic industry environment

Participant, *Nucleate and DDR&D Biofense Hackathon*, Tel Aviv, Israel June 2024

- Conducted research on advanced methods for generating medical-grade oxygen and collaborated with a multidisciplinary team to develop an innovative solution for a more effective method for generating portable oxygen
- Developed and presented a strategic pitch highlighting the innovation's potential benefits and applications

Volunteer, *Hinenu Data Group*, Hashmonaim, Israel October 2023 - December 2023

- Managed network of volunteers to pre-credential medical doctors from abroad into the Israel Ministry of Health system to aid in the war effort
- Successfully streamlined the incorporation of over 6000 foreign medical physicians into the Israeli healthcare system

Team Mentor, *Katz Yeshiva High School*, Boca Raton, Florida January 2023 - March 2023

- Led high school students in designing and constructing Vex Robots, qualifying for the Florida State Competition
- Instructed team member on technical robotics concepts including mechanical assembly, programming logic, and troubleshooting techniques

SKILLS

Programming: Proficient in MATLAB (Numerical Analysis), Python (Tensorflow, Pytorch, Numpy, Matplotlib, PINNs)

Computer-aided Design: Advanced Solidworks (Parts, Assemblies, Drawings, Simulations, Animations), Creo Parametric

Microsoft Software: Proficiency in Excel, Powerpoint, Word

Additional Software: Ansys Fluent, JMP, Jupyter Notebook, Overleaf/LaTex

AWARDS

1st place, Yeshiva League Chess Competition, 2021

2nd place, Chess Competition in Technion, 2022

Technion Israel Institute of Technology Dean's List 2022/2023 Winter and Spring Semesters

Technion Israel Institute of Technology President's List 2023/2024 Winter and Spring Semesters

Technion Israel Institute of Technology Dean's List 2024/2025 Winter Semester

Technion Israel Institute of Technology President's List 2024/2025 Spring Semester