Nagham Abu Hamdi

✉ Nagam.abo3@gmail.com 📞 054-656-5011 in Nagam abo hamdi

Profile:

Biomedical Engineer studied at the Technion. Fast learner with strong analytical and interpersonal skills, experienced in lab work, coding, and independent research, proficient in Microsoft Office tools and Highly motivated.

Education:

- **2021-2025:** B.Sc. in biomedical engineering at Technion Israel Institute of Technology. Specialized in Tissue & Biomaterials Engineering and Imaging & Medical Signals.
- **2017-2019**: "The Druze High School of Science and leadership DARCA-YARKA" graduated, Physics and Chemistry - mean 119

Projects:

- **BSc Final project** on Investigation of Photoelectric Responses in Silicon Based Artificial Axons**:** Conducted experimental research using patch-clamp techniques, and custom code in Python and MATLAB for signal acquisition and data analysis. Aiming to develop a neuromorphic model to support CNS research and drug screening.
- **Clinical Engineering project** in the cardiology department at Rambam Hospital: solving paravalvular leak complications following TAVI procedures.
- Project in **Basic Biomechanics** Designs Course: designing a height-adjustable walker tailored for elderly patients to improve safety, comfort, and mobility. The mechanical design, including static and dynamic stress analysis, was performed using **SolidWorks**.
- **Orthopedic Implants Project:** Analyzed the mechanical role of a Distal Tibial Medial Locking Plate using ANSYS simulations to evaluate stress distribution and implant performance.

Skills, Programming languages and tools:

- Python, MATLAB, SolidWorks, Ansys, LTspice, SAP and Office.
- Medical Image Processing, Principles of Medical Imaging Courses.
- Laboratory courses in Tissue Engineering, Signal Processing, and Biomechanics.

Experience:

2024-2025: Technion dormitory office

2023-2025: Social guide for first year students and students in an abnormal academic situation – Technion: Mentored first-year students, guiding their academic adjustment through effective study techniques and time management skills.

Languages:

English – fluent | Hebrew – fluent | Arabic – native