# Sara Bakhtiari

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#### EDUCATION

# Iran University of Science and Technology

Tehran, Iran 2016-2021

Bachelor of Mechanical Engineering

• GPA: 15.76/20 (3.3/4)

• Notable Courses: Statics, Introduction to Finite Element Method, Solid Mechanics, Dynamics

# EXPERIENCE

# Teacher Assistant

September 2021 – December 2021

Tehran, Iran

• Statics course

# Research Interests

Computational Biomechanics Medical ultrasound & MRI Hard & Soft Tissue Biomechanics Cardiovascular Anatomy & Physiology

Iran University of Science and Technology

# ACADEMIC RESEARCH

#### **Bachelor Degree Thesis**

May 2019 – October 2021

- Simulation of the propagation of Ultrasonic shear waves in the tumor liver environment to diagnose cancer
- A Thesis Submitted in Partial Fulfillment of the Requirement for the Degree of Bachelor of Science in Mechanical Engineering

# Projects

# Construction of a Solenoid Actuator and Control Its Speed

June 2020

- Mechanical design and optimal circuit inspection
- Experience with micro-controller design using the Arduino programming environment
- Machine construction

# Design and Construction of a Wood Lathe Machine

July 2019

- Mechanical calculations and Constraint establishments
- Machine structure Design using SOLIDWORKS
- Machine construction

# Design and Construction of a Hydraulic Powered Arm

April 2018

- Pressure calculations for circuit operation
- Mechanical design and modeling of arm parts to meet the desired degrees of freedom
- Construction of a Hydraulic Powered Arm

# Technical Skills

Tools and Technologies: CATIA, AutoCAD, SolidWorks, COMSOL Multiphysics, Arduino, Microsoft Office

**Programming Languages:** Python, MATLAB, C++

Languages: Persian (Farsi), English

# LICENSES & CERTIFICATIONS

# IELTS Academic Training (Overall Band Score: 6.5)

November 2022 - November 2024

IELTS Official

• Listening: 6.5

• Reading: 6.0

• Writing: 6.0

• Speaking: 6.5