

# Beyza Oner

Biomedical Engineering Student

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Istanbul, TR

Biomedical Engineering student with experience in project work, teamwork, and cross-functional collaboration. Quick learner with strong communication and problem-solving skills, adaptable to both technical and business-oriented roles.

## Work Experience

### TÜBİTAK Project Scholar & Undergraduate Researcher

Dec 2025 - Present

[Yildiz Technical University](#) | Istanbul, Turkey

- Project: Design of a Multifunctional Organ-on-a-Chip Cerebral Cortex and Cerebral Artery Platform (TÜBİTAK Project No: 123E134)
- Conducting research under the supervision of Prof. Dr. Ali AKPEK on microphysiological systems to model cerebrovascular diseases.
- Assisting in the design and simulation of microfluidic platforms for mimicking brain tissue dynamics.
- Performing in vitro analyses and contributing to the technical documentation of experimental results.

### Research Assistant – Additive Implant Manufacturing Laboratory

Aug 2025 - Jan 2026

[Yildiz Technical University](#) | Istanbul, Turkey

- Conducted research on 3D-printed biomedical implants, designing titanium cranial prototypes with SolidWorks and additive manufacturing.
- Applied passivation treatments to improve biocompatibility and contributed to full-cycle medical device development.

### Internship in Biomedical Engineering

Aug 2025 - Oct 2025

[Batman Training and Research Hospital](#) | Batman, Turkey

- Assisted in the maintenance, repair, and calibration of hospital medical devices.
- Supported circuit board repair and fault diagnosis to ensure reliable performance.

### Laboratory Assistant – Microfluidics & Cell Culture

Nov 2024 - Aug 2025

[YTU - Asil Lab](#) | Istanbul, Turkey

- Conducted cell culture studies and designed microfluidic chips for cancer experiments.
- Developed a device to induce wounds in cancer cells and contributed to lab workflows in microfabrication and biological assay design.

### Team Member - Mechanical Design

Oct 2024 - Aug 2025

[Yildiz Technical University IEEE Student Branch](#) | Istanbul, Turkey

- Designed and prototyped the external structure of a bionic arm, including forearm and palm.
- Developed a custom finger mechanism in SolidWorks, 3D-printed components, and assembled the full system with a multidisciplinary team.

### Bootcamp Trainee

Nov 2024 - May 2025

[YTU-Teknopark](#) | Istanbul, Turkey

- Selected among 100 participants for a 9-month entrepreneurship and career program at YTU StartUp House.
- Received training in application development, startup creation, and entrepreneurial strategy.

## Team Member

Dec 2023 - Apr 2024

*Stardust | Istanbul, Turkey*

- Contributed to the mechanical design of an autonomous car utilizing image processing methods.
- Prepared the project for the ITU Robot Olympics competition as part of a multidisciplinary team.

## Core Skills

**Biomedical & Laboratory:** Cell Culture, Microfluidics, Microfabrication, Passivation Treatments, Cancer-Related Assays, Additive Manufacturing of Implants

**Medical Devices:** Maintenance, Repair & Calibration, Fault Diagnosis, Device Prototyping, Circuit Board Repair

**Engineering & Design:** SolidWorks, Fusion 360, 3D Printing (FDM/SLA), Mechanical Design, Autonomous Systems, Image Processing

**Professional & Interpersonal:** Problem-Solving, Interdisciplinary Communication, Entrepreneurship, Project Planning, Startup Creation

**Electronics & Circuit Design:**

OrCAD PSpice, STM32 Microcontrollers, C Programming, Tinkercad, Analog & Digital Circuit Design, Multiplexers

## Education

Yildiz Technical University

Oct 2022 - Present

Bachelor's Degree Biomedical Engineering

## Languages

English (B2+), German (Beginner), Turkish (Native)