

BERKE ATASEVEN

bataseven15@ku.edu.tr • +90 541 520 07 97 • [linkedin.com/in/berke-ataseven](https://www.linkedin.com/in/berke-ataseven)

Portfolio: <https://bataseven.github.io> GitHub: <https://github.com/bataseven>

Rumelifeneri Mahallesi, Rumelifeneri Yolu, Koç
Universitesi, 34450 Sariyer/Istanbul

A passionate, hands-on mechanical engineer with a keen interest in interdisciplinary engineering projects

EDUCATION

Koç University	MSc Mechanical Engineering	<i>Sep 2020 – Present</i>
<ul style="list-style-type: none">Area Courses: Deep Learning / Computer Vision / Biomedical Signal ProcessingOverall GPA: 3.67		
Koç University	BSc Mechanical Engineering	<i>Sep 2015 – June 2020</i>
<ul style="list-style-type: none">Area Courses: Robotics / Vibration Theory / Rocket Propulsion / Machine DesignSenior Year Project: TELE-BOT, teleoperated mobile robot with a manipulator. Was selected as the best engineering project class of 2019-2020		

EXPERIENCE

<i>Co-Founder</i>	Tedavem Bilişim ve Elektronik Sistemleri	<i>July 2021 – Present</i>
<ul style="list-style-type: none">Start-up funded by The Scientific and Technological Research Council of Turkey, TÜBİTAKDeveloping IOT-Based Sensor Systems for remote patient tracking in hospitalsResponsible for mechanical design / machine learning / system integration		
<i>Research Assistant</i>	Robotics and Mechatronics Laboratory	<i>September 2020 – Present</i>
<ul style="list-style-type: none">Developed a haptic interface capable of giving force and weight feedbackRobotic simulation using Gazebo and ROSImplementing motion planning algorithms		
<i>R&D Engineer Summer Intern</i>	Hattat Traktör	<i>June 2018 – August 2018</i>
<ul style="list-style-type: none">CAD Design of a rollover protection structure for various vehiclesFinite element analysis of specific vehicle components		

PROJECTS

- A mobile robot with a robotic manipulator capable of autonomous object tracking won the Best Engineering Project Award for the 2019 – 2020 academic year. [V1](#) – [V2](#)
(Computer Vision, Autonomous Driving, Hardware Design, PCB Design, Unity, C++)
- CANSAT Competition: Designed and manufactured a delta wing payload with asymmetric wings. The payload can gather atmospheric information as it descends on a spiral trajectory.
(MATLAB, Simulink, Hardware Design, Sensor Integration)
- TUBİTAK Autonomous UAV Competition: Coded and tuned the flight control system from scratch. Devised the ground control software to track and autonomously command the quadcopter.
(Simulink, Control Systems, Autonomous Control, Java, C++)
- Developed a prototype to notify nurses in case of venous needle dislodgement of patients. Implemented machine learning techniques in a practical use case scenario. Achieved over 89% detection rate.
(Machine Learning, Convolutional Neural Networks, NumPy, Torch)
- [A Vibrotactile Hand Interface for VR](#) tracking won the Best Engineering Project Award for the 2018 – 2019 academic year.
(Computer Vision, Hand-Tracking, C++, 3D printing, Hardware Design)

PUBLICATIONS

- Ataseven B., Madani A., et al. "Physical Activity Recognition using Deep Transfer Learning with Convolutional Neural Networks," IEEE CyberSciTech/PICom/DASC/CBDCOM 2022

PATENTS

- Nasogastric Tube Design with Self-Induced Momentum**

A new nasogastric tube design aims to minimize the skill required by the medical staff for nasogastric tube insertion.

- Flexible Acoustic Sensor Feedback System Monitoring PEG/ PEJ/Drainage Dislodgements in Patients**

A flexible acoustic sensor system that detects and reports the PEG/ PEJ/ medical drainage dislodgments in patients.

- Sensor Feedback System Monitoring Venous Dislodgements in Patients**

A sensor system to detect and report venous dislodgments in hospital patients. Applied for a patent in collaboration with KUTTAM and Koç University Technology Transfer Office.