Uğur Emin Baynal

Electrical & Electronics/Computer Engineering Student

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🎓 EDUCATION

Electrical and Electronics Engineering, *Izmir University of Economics* Oct 2021 – present | Izmir, Turkiye
Current GPA: 3.16/4

Computer Engineering, *Izmir University of Economics* Sep 2022 – present | Izmir, Turkiye
Current GPA: 2.58/4

Math and Science, *Ankara Gazi Anatolian High School* Sep 2017 – Jun 2021 | Ankara, Turkiye
93.04% graduation score.

💼 PROFESSIONAL EXPERIENCE

R&D Engineering Intern, *EPS Technology*
Jun 2025 – Present | Izmir, Turkiye
- Supported an R&D project focused on color science and image processing
- Contributed to experimental setups and data evaluation processes

Undergraduate Teaching Assistant, *Izmir University of Economics Electrical and Electronics Engineering Department*
Oct 2024 – present | Izmir, Turkey
- Assisted in lab courses involving OrCAD PSpice, circuit analysis, and embedded systems
- Helped students understand theoretical and practical components of engineering subjects

Electronics Engineering Intern, *ASELSAN Presicion Optics*
Aug 2024 – Sep 2024 | Turkey
Admittance-Quality and Thermal/Night Vision Departments

Full-Stack Developer, *EvolveChat*
Jan 2024 – Feb 2024 | Remote
I was responsible for the development of the company's AI products.

🧠 SKILLS

MATLAB/Simulink | Python |
Multi-Agent LLM Workflow Design | OrCAD | KiCAD |
Java | ROS 2 | SQL | CST Studio | Communication |
Organisation | Creativity | Teaching Skills | Teamwork |
Problem-Solving | Project Management

🌐 LANGUAGES

Turkish (Native) | **English** (Fluent) | **Spanish** (Beginner) |
German (Beginner) | **Latin** (Beginner)

🏠 ORGANIZATIONS

IEEE IEU Robotics and Automation Society, *President*
Jun 2025 – Present

IUE Advanced and Innovative Technologies Group, *Member*
Sep 2025 – Present

IUE Signal Processing Group, *Member*
Jun 2025 – Present

EcoFusion'24 by IEEE IUE Student Branch,
Arduino Workshop Instructor
Oct 2024 | Izmir, Turkiye

Model United Nations, *Delegate, President Chair, Under-Secretary-General, Director-General, Secretary-General, Organisational Advisor*
Jan 2018 – Jun 2023
Model United Nations (MUN) is a type of conference which aims to teach students how the UN works.

📂 PROJECTS

K.A.Y.R.A., *Know About Your Route Always*
Sep 2024 – present
BLE-Based Localisation and Wayfinding: A Scalable Approach for Complex Indoor Environments (TÜBİTAK 2204-A Supported)

Teknofest 2025 - ECOWHEELS, *The aim of the competition is to design the most energy efficient electric vehicle.*
Mar 2025 – present
My responsibility included the design of the Vehicle Control System, focusing on the firmware of the said system to enable user interaction and modulate the car functions accordingly.

ECO ROVER, *Software Team Lead / Electronics Team Member*
Oct 2024 – present
- Coordinated a multidisciplinary software team for an autonomous rover project
- Designed PCBs and integrated sensors using KiCAD and Altium Designer

A.Q.U.A. F.A.R.M., *Automated Quality and Utility-Assisted Farming and Resource Management*
Oct 2024 – Jan 2025
Multi-Disciplinary Engineering Project with Multi-Agent LLM Workflow for automated, soilless farming systems.

Teknofest 2024 Rocket Competition, *Medium Altitude Category*
Jan 2024 – Jul 2024
I was a member of the avionics team of GARUDA Rocket and responsible for electronic circuit design and component selection.

CycLock, *Bicycle Security System Concept*
Feb 2022 – Jun 2022

Ses Kes, *Medical Noise Cancellation Device for Neurodivergent People*
Sep 2023
Electronics and Computer Engineer/Project Lead

📚 COURSES

CE 475 - Fundemantals and Applications of Machine Learning, *Izmir University of Economics Engineering Faculty*
In this course, I expanded my knowledge of machine learning algorithms. The course project was on a given dataset and expected to predict the outcomes via a coding environment of our choice. My implementation was on MATLAB.

MCE 412 - Autonomous Robotics, *Izmir University of Economics*
In this course, I learned fundamental methods of design and analysis on autonomous robotics.

EEE 453 - Adaptive Filters, *İzmir University of Economics*
In this course, I have gained knowledge on modeling random processes that generate random signals, stationary processes, linear optimal (Wiener) filtering, linear adaptive filtering, steepest descent, LMS, and RLS learning algorithms, and Kalman filter theory.

🏅 CERTIFICATES

InovaTim AI Course, Izmir University of Economics Mentor Programme, MATLAB Onramp, MATLAB Signal Generation and Resampling, MATLAB Spectral Analysis Techniques, Simulink Onramp