MUSTAFA BİÇER

Computer Engineer

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Mustafa BİÇER

https://github.com/poqob

Experience

R&D Engineer (UMDE - Venhancer)

2025 - Continues

Venhancer

Within the scope of the UMDE program, I am actively engaged in the Research and Development department of Venhancer. Throughout this period, I have been providing valuable support to our company in the areas of mobile application development and backend development, thereby contributing to the successful advancement of various projects. These endeavors have enabled me to both enhance my technical knowledge and skills and gain experience in real-world projects.

FEC Teknofest Team Leader

2023 - Continues

Teknofest

I am continuously developing AGV technologies using artificial intelligence, backend, and mobile application development. I focus on using technologies like deep learning, computer vision, Python, Django, APIs, web applications, and Flutter to enhance AGVs' environmental perception and decision-making capabilities, facilitate their control and monitoring, and provide user-friendly mobile applications. In addition, I am working on a mesh topology internet network project, which incorporates a set of proprietary protocols I developed. This network can be used by devices such as STM32, Arduino, ESP, and even modern IT devices with appropriate interfaces, expanding its versatility and application scope. We are collaborating with FADA Mühendislik to further these developments. My goal is to further advance AGV technologies and contribute to their widespread adoption in various industries as a team leader.

YEDITEK Computer Vision Intern

2024 (3 Months)

YEDITEK

During my internship at Yeditek, I collaborated on various computer vision projects. I worked extensively with the Basler camera SDK and experimented with different lighting setups, including dome lights and coaxial lights, to optimize image capture for processing. As my signature project, I developed an industrial-standard quality control software for Babe Metal, a company in Bursa's small industrial zone. This software detects features on parts, identifies defects, and notifies the machine operator if the part meets approval standards, streamlining the quality control process.

Prometheus Teknofest - AI Engineer

2022 - 2023

Teknofest

Prometheus is a developer group that the primary goal of winning the Teknofest Artificial Intelligence in Transportation competition. The Prometheus team, collaborated on the development of the YOLOV5 deep learning model, which resulted in achieving the 10th position in Turkey among hundreds of participants.

Skills

- Management Skills
- Software Developer
- Artifical Intelligence
- Computer Vision
- Team Work
- Communication

About Me

I am a software developer passionate about technology and innovation. My interest in artificial intelligence led me to participate in the Artificial Intelligence in Transportation Competition, where I achieved the 10th place in Turkey. Driven by this passion, I took on a leadership role in a Teknofest team competing in the Digital Technologies in Industry category. Our team achieved first place in Sakarya and completed the competition successfully as one of the top 11 teams in Turkey. With my aptitude for teamwork and strong communication skills, I am dedicated to leading my team to success. I aim to leverage my experience in computer vision and interest in Flutter mobile app development to create products that benefit people.

Education

Emir Sultan High School

school 3rd degree. (87/100)

2016 - 2020

Sakarya University

Computer Engineering (2.68)

2020 - 2025

Language

Turkish

English

Licenses and certifications

Oct 2024 | Teknofest

Teknofest Digital Technologies in Industry Participation Certificate

May 2023 | Teknofest

Teknofest Artificial Intelligence in Transportation Participation Certificate

Feb 2023 | BTK

Mobile Application Course Participation Certificate with Google Flutter

Projects

Teknofest Transportation AI Computer Vision Project

About

In the Teknofest 2023 Transportation AI Competition, our transportation AI project, developed as a team effort, ranked 10th out of 33 finalists in Turkey. With our diverse engineering backgrounds in the Prometheus team, we conducted comprehensive research and development throughout the project to provide AI-based solutions for transportation problems.

Smart Restaurant Concept Project

About

This project uses various software and hardware technologies like Python (Flask, Bootstrap), ESP8266 web server, C++, and Arduino to create a smart restaurant system focusing on improved customer satisfaction and operational efficiency through features like temperature/humidity monitoring, rain detection, and automated functionalities. It aims to bring the benefits of IoT technology to restaurants and cafes, enhancing the overall experience for both businesses and customers.

https://github.com/poqob/iot-restaurant-server

https://www.youtube.com/watch?v=412pyw3pYMo

Teknofest Industrial Digital Technologies Competition

About

Our Automated Guided Vehicle (AGV) was successfully built and competed as a finalist in the TEKNOFEST competition held in Antalya. The AGV autonomously transports materials in manufacturing facilities and warehouses, navigates routes, and avoids obstacles, significantly enhancing the efficiency and safety of logistics processes. During the competition, we showcased our AGV, which features 11 original software projects. Among these, the most important was the unique network project we developed, enabling robust communication between systems. By utilizing cutting-edge technologies in artificial intelligence, computer vision, and robotics, our AGV is not only a standout at TEKNOFEST but also poised to make a lasting impact on the logistics industry.

Art Gallery Mobile App

About

I built the Art Gallery mobile app using Flutter to improve my skills in database management, API design, and user interface. To achieve this, I created a Postgresql database with a .NET admin panel and implemented the mobile app using the Bloc-Cubit architecture. While I designed the database similarly to social media apps, limitations on project scope and time prevented full feature implementation in the mobile app.

https://github.com/poqob/art_exhibition

OCR Web Application

About

Leveraging Docker and Tesseract character recognition model, I built OCRweb – a web application using HTML, CSS, JavaScript, and web technologies. OCRweb empowers users to extract text from images efficiently, simplifying tasks and improving productivity by utilizing advanced algorithms and eliminating the need for manual transcription.

https://github.com/poqob/OCRweb

https://youtu.be/HaXJhpfLJZk

Encryption Mobile Application

About

This is an encryption app which encrypts user text inputs into Binary, Octal and Hex based forms. The app encrypts user inputs thanks to the encrypt_bho package that i write for Dart Language.

https://github.com/poqob/encryption_application

https://github.com/poqob/package_encrypt_bho

https://www.youtube.com/watch?v=8B7ceEOWWAI