

Abdülkerim Akan Computer Engineering

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Profile

- Yozgat Bozok University Computer Engineering 4rd Year Student
- Google Game and App Academy Graduate
- Teknofest Lematek Software Team Leader

Languages

- Turkish
- English (Intermediate)

Projects

2022/08 – 2023/06

Autonomous Vehicle Control System

Embedded System Applications and RF Control Integration with STM32 Microcontroller

Management of the autonomous vehicle project using STM32. In 2023 Teknofest Autonomous Vehicle category, Autonomous Control System (ACS) took place. Using STM32 microcontroller, I worked on stepper motor controls, RF control systems in the vehicle. I gained experience in embedded systems, PCB card design and card printing.

<https://github.com/kerim47/Stm32CubeIdeProjects> [↗](#)

2022/10 – 2022/12

STM32 Based Health Monitoring Application

Mobile Application Integration for Patient Monitoring with Temperature and Heart Rate Sensors

Within the scope of this project, a system that monitors the health data of sick individuals instantaneously using STM32 microcontroller is designed. The data collected through temperature and heartbeat sensors are integrated with a mobile application to enable continuous monitoring of health status.

<https://github.com/denizzhansahin/stm32-firebase-health-control> [↗](#)

2024/05 – 2024/06

Artificial Intelligence Powered Quiz App

I developed an AI-powered quiz application with the Flutter team at Google Game and App Academy. In this project, we created an original and fluid UX/UI design to provide a user-friendly experience. We integrated user input using Firebase and added AI features with Gemini API to make the learning process more interactive.


https://github.com/kerim47/quizz_ai [↗](#)

2024/03 – 2024/08


Sign Language Transcription System

In this project, a system that translates sign language into text has been developed to overcome the communication difficulties faced by hearing impaired individuals in daily life. Within the scope of the project, Mediapipe, LSTM and YOLOv8 models and related libraries were used to analyze and transcribe sign language accurately.

https://github.com/kerim47/TID_TUBITAK [↗](#) - (It's hidden at the moment. It will be shown upon request.)

- 2023/09 – present **Artificial Intelligence Assistant for the Visually Impaired**
In this project, I focused on developing a smart assistant to facilitate the daily lives of visually impaired individuals. The assistant offers functions such as text reading using OCR (Optical Character Recognition) technology, identifying and recommending clothing with Gemini API, money and card recognition, and face recognition. I also worked on voice modeling using Piper, aiming to increase the independence of visually impaired individuals and enable them to better interact with their environment.
<https://github.com/LEMATEKORG/BanaGozKulakOl>  (It's hidden at the moment. It will be shown upon request.)
- 2024/09 – present **Sound Directional Analysis System for Emergencies**
Detection and Redirection of Accidents, Noise and Gunshots
In this project, a Microphone Array is used to detect emergency sounds (accidents, noise, gunshots) by determining the direction of the sound sources. Background noise is reduced with Digital Signal Processing (DSP) and KNN (K-Nearest Neighbors) and SVM (Support Vector Machine) algorithms are used to classify the sounds.

Experience

- 2023/11 – 2024/08 **Google Game and Application Academy, Google Turkey**
 - I received intensive flutter training at Google's Game and App Academy.
 - I gained basic and advanced flutter skills, developed various projects and gained practical experience.
 - I improved my problem solving skills and teamwork abilities.
 - By participating in GameJam events, I had the chance to practice my app development skills in a limited time frame.
- 2023/06 – present **Software Leader, LEMATEK**
 - I'm one of the managers in theematek team in the position of software lead.
 - I have worked on image processing on stereo cameras such as ZED and Intel RealSense.
 - I integrated Yolo and LSTM models into the project.
 - I developed audio models using Piper.
 - I took an active role in main code development, advancement and optimization processes.
 - I ensure timely and effective completion of projects in software integration and management.
 - Together with my team, we participated in Teknofest and Entrepreneurship competitions; we won the best presentation award in this process.**<https://lematek.com.tr/> **

Education

- 2020/10 – present **Bachelor's degree, Computer Engineering**
Yozgat Bozok University

Skills

- **Engineering** — Skillful **Linux** — Skillful
- **Bash Script** — Skillful **Git & Github** — Skillful
- **C++** — competent **Python** — competent
- **Flutter** — Skillful **Leadership** — Experienced
- **Project Management** — Experienced

Interests

- Reading Blocks and Forms
- Movie Watch
- Table Tennis