

Abdullah ERZIN

Istanbul, TR | +90-531-594-5528 | abdullaherzin80@gmail.com | [Github](#) | [LinkedIn](#) | [Medium](#) | [BentoMe](#)

EDUCATION

Marmara University

Mechatronics Engineering

Istanbul, TR

Graduation Date: Mar 2021

WORK EXPERIENCE

Robsys Robotic Systems

Istanbul, TR

Software Engineer

- Developed an autonomous moving system from scratch for a cleaning robot, including mapping and navigation with arrays, and managed robot communication independently, ensuring no external dependencies.
- Leveraged a Jetson device with AI models for real-time data acquisition and precise control through direct communication with the robot's motherboard.
- Collaborated with cross-functional teams to develop a robust communication system that streams live data and camera feeds to a mobile app, enhancing user experience by providing real-time monitoring and remote control capabilities.

Bomensorsoft (Lay-off due to economic bottleneck)

London (Remote)

AI Developer

Jan 2024 - Feb 2024

- Collaborated with team members to optimize AI models and add new features to backend significantly enhancing efficiency and performance
- Revamped website log structure using JavaScript, HTML and Python, enhancing data connectivity and streamlining access for improved analysis
- Expanded website functionality by developing new pages and implementing additional features to enhance the backend of the company's project

DGR Project

Istanbul, TR

Computer Vision Engineer

May 2023 - Dec 2023

- Led end-to-end development of algorithms and AI models demonstrating a deep understanding of project intricacies
- Developed a highly secure face recognition algorithm achieving 98% accuracy and reducing false positives by 30%, optimizing memory usage to just 4kb with Jetson Nano
- Optimized processing time through C++ function optimization, enhancing efficiency
- Aligned package versions with project dependencies for compatibility with Jetson, while customizing AI models for the platform
- Spearheaded the development of an innovative live streaming project, aiming to reduce processing time to under 30ms, managing both software and computer vision model development

ZGN Autonomous & Robotics

Istanbul, TR

Autonomous Vehicle Development Engineer

Dec 2022 - May 2023

- Contributed to autonomous driving algorithm development projects
- Optimized pathfinding algorithm for autonomous vehicles, resulting in a 30% reduction in processing time and increased overall efficiency
- Designed and implemented an algorithm enabling robots to map areas directly using construction plans' blueprint

Gensys Automation & Machine Vision

Kocaeli, TR

Machine Vision Engineer

Dec 2021 - Dec 2022

- Acquired proficiency in C#, SQL and Halcon, utilizing these skills to develop desktop applications and machine vision programs
- Integrated Halcon codes into C# desktop applications and established connections with MSSQL databases for seamless functionality

- Conducted on-site setup of project in the early stages of my career and developed two projects for Tubitak(The Scientific and Technological Research Council of Türkiye)
- PROJECT EXPERIENCE**

Gensys Automation & Machine Vision (TUBITAK)

Non-Destructive Testing Program

Kocaeli, TR

Jan 2022 - May 2022

- Spearheaded a research project focused on non-destructive testing (NDT) utilizing halogen lamps
 - Conducted mathematical research to develop equations for the project
 - Designed and implemented a setup with halogen lamps and thermal cameras for experimental purposes
 - Developed a desktop application to successfully demonstrate the detection of defects in materials using thermal cameras and heat effects

Gensys Automation & Machine Vision (TUBITAK)

Auto Image Cropping Program

Kocaeli, TR

Feb 2022 - Mar 2022

- Developed an auto image cropping program to preprocess images for feeding into machine learning models

DGR Project

High Secured Face Recognition System

Istanbul, TR

May 2023 - Jul 2023

- Independently developed and implemented an algorithm aimed at enhancing efficiency, resulting in the creation of a high-security face recognition system achieving 98% accuracy
 - Solely managed the entire development lifecycle of the project, from conceptualizaion to deployment, ensuring robust security measures and optimal performance
 - Engineered innovative solutions to reduce false positives by 30% and optimize memory usage to a mere 4kb for personal data storage, demonstrating strong problem-solving skills and technical acumen

DGR Project

Live Streaming Poject Leadership

Istanbul, TR

Start Date - Finish Date

- Led to end-to-end development of an innovative live streaming project with the primary goal of recuding the entire process time to under 30ms for seamless live stream on YouTube.
 - Implemented advanced algorithms and software engineering methodologies in independently to optimize the live streaming process for minimal latency and superior performance

Robsys Robotic Systems

Software Engineer

Istanbul, TR

Mar 2024 - Present

- Utilized stereo cameras, ultrasonic sensors, and encoders to build a comprehensive autonomous navigation system for the cleaning robot, ensuring accurate environmental sensing and movement.
 - Collaborated with an embedded engineer to design and implement a custom communication protocol via UART for precise control and data exchange between the robot’s motherboard and its subsystems.
 - Integrated real-time data and camera streaming to a mobile app, enabling users to monitor and control the robot remotely, including safety operations through direct interaction with the app.
 - Developed a dynamic mapping and navigation algorithm from scratch using NumPy arrays, allowing for autonomous driving and real-time updates of the robot’s environment.
 - Developed a custom AI model integrated into the autonomous driving algorithm, enhancing the robot’s ability to navigate and make real-time decisions based on environmental data

SKILLS & INTERESTS

Skills: Python, JavaScript, C#, C++, HTML, Css, Sql, Tensorflow, PyTorch, OpenCV, Numpy, Git

Interests: Motorcycles, Scuba Diving (1* Diver)

REFERENCES

Yasin Çiçek : Robsys Robotic Systems : Embedded Software Engineer +90 545 961 21 61