

# İLKER ERKEK

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## EDUCATION

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### Dokuz Eylül University

B.Sc. Computer Engineering GPA: 3.18/4

İzmir, Turkey  
Sep 2019 - Jul 2023

## WORK EXPERIENCE

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### Algomedi

Software Engineer and R&D Engineer

İzmir, Turkey  
Aug 2022 - Present

- Created and deployed a Convolutional Neural Network model with our team, using Keras and TensorFlow Serving that can classify waveform types of Electrocardiography signals with up to 98% accuracy.
- Deployed data pipelines to perform data integration and data processing services.
- Participated in R&D projects and presentations of the projects to the jury.
- Participated in the requirements analysis process with the medical team at the Dokuz Eylül University Research and Application Hospital.
- Created deployment pipelines and scripts for the projects using Azure Pipelines.
- Developed brand new features for full stack applications with .Net Core and MSSQL Server.

### Algomedi

Software Engineer Intern

İzmir/Turkey  
Feb 2022 - Aug 2022

- Participated in the Data Analysis process for R&D projects.
- Development and maintenance of full-stack applications with ASP .Net Core.
- Creating scripts for automating tasks in the codebase using Powershell Core.

### Pialab

Software Engineer Intern

İzmir, Turkey  
Jun 2021 - Feb 2022

- Development of a modern Rest API using ASP.Net Core Framework for resource management and accounting application for companies and organizations.
- Created a chatbot mobile application that uses Azure Cognitive Services to help salespeople categorize and find their products more easily.
- Addressed production bugs and implemented new features to current existing web services using ASP .Net Framework.

## SKILLS

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Technical Skills:	Algorithm Implementation, Data Science, Data Analysis,, Mathematics, Software Development, Web Development, Machine Learning, DevOps, Scripting
Soft Skills:	Great teammate, Curious mind, Analytical Thinking, Fast problem solving, Optimism, Healthy decision making.
Programming Languages:	Python, C#, JavaScript/Typescript, Java, C/C++, SQL.
Frameworks And Libraries:	.Net Core, Tensorflow/Keras, Node.js, Scikit-learn, Express.js, React, Pandas/Matplotlib/Seaborn, OpenCV/Pillow
Tools:	Git, Postman, Bash, Linux, Powershell Core, Azure Devops, MongoDB

## PROJECTS

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### **Immediate Urgent Information** *React Native, TensorFlow/Keras, OpenCV, Pillow, TensorFlow Lite*

A mobile app for swift emergency alerts using Turkish keywords and the device's microphone. Our innovative solution employs a Convolutional Neural Network and spectrograms to detect crucial keywords. The model is hosted on mobile devices with Tensorflow.js for efficiency and accessibility during emergencies.

### **Dijkstra's Maze** *Unity, C#*

An engaging Unity simulation for pathfinding algorithms that goes beyond mere visualization, gamifying the experience for enhanced interactivity. Algorithms traverse the grid, revealing their intricacies in a captivating and interactive manner. Lets the user immerse in the dynamic and user-defined environment, gaining a deeper understanding of pathfinding concepts while enjoying the gamified elements.

### **Digit Recognizer App** *Python, Flask, TensorFlow/Keras*

Digit recognizing website hosted on Flask with a free canvas for creative drawing. Augmented data trains the model for precise predictions, recognizing a wide array of user inputs.

### **Basic Graphics Engine** *C++*

A basic C++ graphics engine for rendering ".obj" files, showcasing computer-generated imagery with triangles on the screen.

### **Weather App** *React, JavaScript*

Weather forecast app using Weather API and React, providing real-time updates for an intuitive user experience.

## LANGUAGES

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**Turkish** *Native Proficiency*

**English** *Professional Working Proficiency*

**Spanish** *Elementary Proficiency*

## ACHIVEMENTS

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### **Genç Beyinler Yeni Fikirler Proje Yarışması**

Jul 2023

Participated with my team in the society and health category. Our team and project, Immediate Urgent Information managed to be one of the finalists in the category.

### **Teknofest 2022 Ulaşımında Yapay Zeka Yarışması**

Jul 2022

Our proposed solution to the problem consisted of Computer Vision and Object Detection in real time. The YOLO algorithm has been used as the main model in our team's solution. Our team and the solution we proposed has successfully passed the judge review with 77,00/100,00 points.

### **Google Hash Code 2022**

Feb 2022

Our team excelled among the other teams in the competition as we've accomplished to be the 5<sup>th</sup> team in the DEU – Depark Hub with the solution we've implemented in C++.

### **EnerjiSA Üretim Hackathon**

May 2022

Participated with a 2 member team, we were successful in creating a highly accurate model with the given data in the span of 2 weeks. My team and I were able to be 21<sup>st</sup> team among the 128 groups.

## INTERESTS

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History, Mythology, Mathematics, Physics, Philosophy, Artificial Intelligence, Graphics Design, Reading, Video Games.