İlker Erkek

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EDUCATION

Dokuz Eylül University — İzmir, Turkey
B.Sc. Computer Engineering *GPA: 3.18/4* — Sep 2019 - Jul 2023

WORK EXPERIENCE

Algomedi — İzmir, Turkey
Software Engineer and R&D Engineer — Aug 2022 - Present

- Developed and launched a CNN model with our team using Keras and TensorFlow Serving, achieving up to 98% accuracy in classifying ECG signal waveforms.
- Developed and maintained robust backend services using .Net Core and MSSQL, enhancing system architecture quality and performance.
- 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 and PowerShell Core.
- Utilized Git for version control, focusing on efficient branching and merging strategies to maintain a stable development environment.

Algomedi — İzmir/Turkey
Software Engineer Intern — Feb 2022 - Aug 2022

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

Pialab — İzmir, Turkey
Software Engineer Intern — 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

Technical Skills:	Algorithm Implementation, Software Development, Web Development, Data Science, Machine Learning, Exploratory Analysis, Modeling Data Communication and Visualization, Data Engineering, Data Management DevOps, Scripting, REST Services, gRPC Services, Mathematics, Statistical Experimentation, Competitive Programming
Soft Skills:	Excellent team collaboration, Strong curiosity, and analytical skills, Quick problem-solving ability, Positive outlook, Sound decision-making, Attention to Detail
Programming Languages:	Python, C#, JavaScript/Typescript, C/C++, SQL.
Frameworks And Libraries:	.Net Core, Node.js with Express.js, React, TensorFlow/Keras, Scikit-learn, Pandas/Matplotlib/Seaborn, OpenCV/Pillow, ADO.NET, Mongoose, Sequelize, SQLAlchemy
Tools and Services:	MongoDB, Redis, Docker, Git, Postman, Linux, Bash, PowerShell Core, Azure DevOps

PROJECTS

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.

Bootcamper API *Express, MongoDB, Mongoose*
Web Application REST API, empowered by Express and MongoDB to store and serve the bootcamps in an area according to REST design principles. Application allows users to view and create their own bootcamps and courses to be viewed by other users with geolocation data.

Public Blog App *React, Express, MongoDB, Mongoose*
Public blog application that utilizes a MERN stack (MongoDB, Express, React, and Node.js) to create a fully functional public blogging platform. This application features a React frontend for a dynamic user experience, an Express and Node.js backend for server-side operations, and MongoDB with Mongoose for database management. Users can upload images and write posts in a centralized feed to share with others.

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

LANGUAGES

Turkish *Native Proficiency*
English *Professional Working Proficiency*
Spanish *Elementary Proficiency*

ACHIEVEMENTS

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 Ulaşımda 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 5th 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 21st team among the 128 groups.

INTERESTS

History, Mythology, Mathematics, Physics, Philosophy, Artificial Intelligence,
Reading, Video Games, Chess