

EFE HÜSEYİN ÖZKAN

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Education

Altınbaş University

Management Information Systems (Department Rank: 1st, GPA: 3.76)

September 2022 - Present

İstanbul, Türkiye

Experiences

Altınbaş University

Part-time Web Content Coordinator

October 2023 - September 2024

İstanbul, Türkiye

- Actively participated in editing and updating content on the university's website.
- Implemented modifications using HTML and CSS to ensure a user-friendly interface of the website.
- Enhanced engagement with the target audience by sharing university events and announcements on social media platforms.
- Executed necessary content adjustments to improve the website's SEO performance.

UNICEF

Face-to-Face Representative

November 2022 - December 2022

İstanbul, Türkiye

- Participated in events to promote UNICEF's mission and projects, providing information and collecting donations.
- Engaged in local and national events to contribute to UNICEF's goals.

Language

- English: Reading B2, Listening B2, Writing B2, Speaking B2

Skills and Technologies

- Languages & Frameworks:** Python (NumPy, Pandas, FastAPI, Flask), JavaScript (React Native, React.js, Node.js, Next.js, Express), PHP, HTML5, CSS3, Bash
- AI & ML Tools:** PyTorch, Hugging Face Transformers, TensorFlow, Scikit-learn, OpenCV, YOLO, Keras, ONNX Runtime, NLTK, SpaCy
- Databases:** SQL, MongoDB
- DevOps & Tools:** Docker, Docker Compose, Git, GitHub Actions, Jenkins, Vercel, Netlify, Postman, Swagger, REST & WebSocket APIs
- Data Analysis & Visualization:** SPSS, Microsoft Excel (Power Query, Pivot), Power BI, Matplotlib, Seaborn
- Tools:** Git, Docker, Vercel, Linux, Microsoft Office, SPSS, Jenkins

Projects

Tübitak 2209B: Visual Defect Detection for Packaged Food | Python, YOLO, CNN, Next.js, Pytorch | April 2025 - Present

- Developed a deep learning-based quality control system for the packaged food industry using YOLO segmentation and detection models.
- Achieved over **90% accuracy** in real-time defect detection with pixel-level precision using convolutional neural networks.
- Designed a React based dashboard interface to display metrics such as defect count, total production volume, and performance ratios.
- Solely conducted the project as the principal researcher; officially approved in **April 2025** by TÜBİTAK and currently ongoing.

Mobile App: Lyravue AI | React Native, Python, Docker | June 2024 – December 2024

- Spearheaded end-to-end development of Lyravue AI, orchestrating three distinct AI subsystems (lyric embedding, rhythm-to-image GAN, and melody style transfer) to generate rich visual art from songs.
- Containerized backend microservices with Docker and zero-downtime deployments via GitHub Actions.
- Built an asynchronous REST+WebSocket API for real-time progress updates, increasing user engagement by **30%**.

- Launched on Google Play with a **5/5** rating.

AI MODEL: Turkish Lyrics Genre Classification 🤖 / *Python, Pytorch | July 2023 – August 2023*

- Trained a genre classification model using the BERT language model on a dataset of Turkish song lyrics to predict the genre of a given song.
- Implemented Python scripts to preprocess the dataset and fine-tune the BERT model for genre classification tasks.
- Fine-tuned a multilingual BERT base model to **93% classification accuracy** (0.90 F1-score) on a held-out test set.

AI MODEL: Lyrics Genre Classification 🤖 / *Python, Pytorch | July 2023 – August 2023*

- Trained a genre classification model using the BERT language model on a dataset of song lyrics to predict the genre of a given song.
- Implemented Python scripts to preprocess the dataset and fine-tune the BERT model for genre classification tasks.
- Fine-tuned a multilingual BERT base model to **94% classification accuracy** (0.92 F1-score) on a held-out test set.
- Employed tokenization, up/down-sampling, and data-augmentation to mitigate class imbalance, improving minority-class recall by **15%**.

Turkish Retr0 TV 🌐 / *Python, MongoDB | October 2022 – February 2023*

- Built a nostalgia-driven web platform serving **200+** retro TV shows (1 000+ episodes).
- Implemented features for browsing and viewing retro TV shows and movies.
- Leveraged Docker Compose for development/production parity and achieved **99.9%** uptime over a 4-month pilot.

Leadership & Activities

Altınbaş University AI and Robotics Club | Vice President

2023 - Present

- Co-led a 400+ member student organization focused on artificial intelligence, robotics, and machine learning applications.
- Organized hands-on workshops and technical seminars on topics such as deep learning, computer vision, and embedded systems impacting over 100+ attendees across campus.

Certifications

GNU/Linux System Administration
CI/CD with Jenkins

Akbank Data Analysis Bootcamp

Aygaz Deep Learning Bootcamp

Aygaz Machine Learning Bootcamp

Data Analysis with SPSS

Machine Learning

Image Processing with Artificial Intelligence

Software Development with Node.js

Akbank Python Bootcamp

Image Processing Workshop

Turkish Linux Users Association / August 2024

Turkish Linux Users Association / February 2025

Global AI Hub / May 2023

Global AI Hub / December 2023

Global AI Hub / September 2023

Altınbaş University / May 2023

Miuul / October 2024

Altınbaş University / May 2023

Istanbul Metropolitan Municipality / November 2024

Global AI Hub / March 2024

Istanbul Metropolitan Municipality / November 2024