Musab Ahmed Khan Umair

github.com/musabaku

linkedin.com/in/musab-ahmed-khan-umair-77abb5132

EDUCATION

Istinye University — Master's in Artificial Intelligence

February 2025 – Present

Mobile: +90 535 657 3565

Email: musabkhan2003@gmail.com

Bachelor's in Computer Engineering (GPA: 3.17, Graduated February 2025)

EXPERIENCE

Tubitak Project Research Intern

December 2024 - Present

Istinye University

Istanbul, Turkey

- Contributing to a 36-month project on Early-Stage Pediatric Cardiology Anomaly Detection, enhancing early detection of congenital heart anomalies using geometric analysis and computational modeling.
- Engineered an automatic image segmentation model using U-Net on MRI scans from 100+ patients, accurately delineating cardiovascular structures from annotated ground truth masks for clinical insight.

AI Research Intern February 2025 - Present

Yuva Intelli AI Solutions.

Hyderabad, India

- Built an end-to-end OCR system using OpenCV for preprocessing, integrated Tesseract, Azure, and Gemini for robust text extraction, and automated batch number detection with confidence-based logging.
- Developing an Arabic audio analytics pipeline leveraging Whisper for transcription, CAMeL-BERT for sentiment analysis, and LDA/TF-IDF for topic modeling, producing insights via interactive visual dashboards.

Computer Engineer Internship

July 2023 - August 2023

Big Property Agency

Istanbul, Turkey

- Implemented a real estate website with 30+ properties, JWT-based authentication, and efficient property search functionality [Live Demo]
- Produced a full-stack web application using the MERN stack (MongoDB, Express, React, Node.js) with core functionality while offering 5 comprehensive guides on Turkish investment opportunities

Student Research Assistant

November 2023 - February 2025

Istinue University

Istanbul, Turkey

- Conducted research on machine learning applications in healthcare, including hyperthyroid detection with 1356 patients and fetal health risk analysis with 2126 patients .
- Achieved 99.53% accuracy in fetal health analysis using Random Forest and Optimized predictive models in Python with Scikit-learn, Pandas, and NumPy for data preprocessing, feature engineering, and analysis.

Projects

$\textbf{MealDiary App} \quad | \quad \textit{C-Sharp}, \textit{NET}, \; \textit{React}, \; \textit{PostgreSql} \\$

December 2024 - February 2025

- Developed **MealDiary**, a web-based meal tracker that logs and categorizes 100+ home-cooked recipes using flexible tag-based filtering (e.g., breakfast, lunch, dinner, vegetarian).
- Engineered a scalable backend with C# (.NET 8), Entity Framework Core 9, PostgreSQL, and secure JWT authentication, while designing the frontend with React 18
- Integrated Cloudinary for 100+ image management, containerized the backend with **Docker**, and Deployed the application on Render with Supabase-hosted PostgreSQL. . [Live Demo]

Mcommerce | React, MongoDB, Node.js, Express.js, Git

May 2023 – July 2023

- Developed a full-stack MERN MCommerce platform hosting 10+ user accounts with user registration, authentication using JSON Web Tokens (JWT), and secure browsing functionalities.
- Designed and integrated an admin panel to manage 40+ products and categories, providing an interface for easy product updates and inventory management [Live Demo]

TECHNICAL SKILLS

Languages: Python, Java, C#, JavaScript, HTML/CSS, SQL

Frameworks/Libraries: React, Node.js, .NET, Express.js, Pandas, NumPy, Scikit-learn, OpenCV, PyTorch,

LangChain, Transformers, Matplotlib, Seaborn

AI/NLP Tools: OpenAI Whisper, Tesseract OCR, Azure AI, Google Gemini, CAMeL-BERT, TF-IDF, LDA

Databases: PostgreSQL, MongoDB

Developer Tools: Git, VS Code, Visual Studio, Docker, pgAdmin, Supabase