



ŞEHMUS YAKUT

AI&DATA ENGINEER

AI Engineer with experience building end-to-end machine learning systems, scalable data pipelines, and GenAI applications. Specialized in RAG architectures, knowledge graphs, LLM-powered systems, and production-ready AI infrastructure. Passionate about transforming research into real-world AI products.

CONTACT

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📍 Küçükçekmece/İstanbul



EDUCATION

Computer Engineering

Yıldız Technical University (Bachelor's Degree)

2020 - Jan 2026

High School

Batman Anatolian High School

2016-2020

PUBLICATIONS

Facial Stress and Fatigue Recognition via Emotion Weighting: A Deep Learning Approach

Authors: Oskooei, A. R., Caglar, E., Yakut, S., Tuten, Y. T. & Aktas, M. S.

[source link](#)

Others: In O. Gervasi et al. (Eds.), Computational Science and Its Applications – ICCSA 2025 Workshops (Lecture Notes in Computer Science, Vol. 15886). Springer, Cham.

A Multimodal Transformer-Based Framework for Emotion Analysis in Multilingual Video

ContentAuthors: Yakut, S., Tuten, Y. T., Caglar, E. & Aktas, M. S.

[source link](#)

Others: Computers 2026, 15, 77. MDPI.

WORK EXPERIENCE

Doctor Follow - Data Engineer

02.2026 - 05.2026

- Develops automated ETL pipelines using Python to structure large-scale medical datasets for improved accessibility
- Optimizes medical knowledge graphs to enhance the retrieval speed and accuracy of RAG-based applications
- Designs structured data models to facilitate high-speed querying across complex medical content nodes

Turkcell - Network Technologies Intern

02.2025 - 04.2025

- Automated routine network tasks using Python scripts to improve efficiency
- Tasked with supporting core network deployment and monitoring
- Implemented automation scripts, and worked with core topologies
- Enhanced troubleshooting speed and improved network reliability

Spor Sepeti - Mobile Developer (part-time)

03.2024 - 10.2024

- Built a cross-platform app requiring real-time data handling
- Tasked with implementing backend logic and API integration
- Developed backend in Dart, integrated RESTful APIs, and managed live data streams
- Delivered a responsive, real-time app with improved user interaction and performance

PROJECTS

TÜBİTAK 2209-A Blind Spot Detection & Warning System

04.2025 - 12.2025

Led the development of a cost-effective blind spot detection and hazardous distance warning system for motorcycles as part of a 5-member team, funded by TÜBİTAK 2209-A. Collaboratively implemented real-time computer vision and object detection algorithms to enhance rider safety, achieving accurate detection of vehicles in blind spots and reducing potential collision risks through timely visual alerts.

Stress & Fatigue Detection via Facial Expression Recognition

10.2024 – 01.2025

Developed a deep learning system to detect stress and fatigue through facial expression recognition. Applied transformer-based models (ViT, BEiT), which outperformed traditional CNNs on the FERPlus dataset. Led data preprocessing, emotion classification, and result visualization tasks, achieving improved model accuracy and more robust emotion recognition performance. GitHub link: 

Alzheimer's Disease Classification using Deep Learning and Neuroimaging

02.2025 – 06.2025

Developed a deep learning-based system to classify MRI brain scans into Cognitive Normal (CN), Mild Cognitive Impairment (MCI), and Alzheimer's Disease (AD) categories. Applied state-of-the-art architectures on neuroimaging data to achieve accurate multi-class classification and support early diagnosis of Alzheimer's Disease. GitHub link: 

Travel Assistance: Multi-Language Smart Guide Application

09.2025

Engineered a comprehensive, full-stack travel assistant web application utilizing Next.js 15 and TypeScript to provide real-time location-based services. Integrated Google Maps API to deliver interactive mapping, route planning, and discovery of nearby attractions, restaurants, and transit options. Implemented essential traveler tools including a multi-currency converter, real-time weather forecasting, and a built-in translator with multi-language support. Designed with an MVVM architecture and responsive UI using Tailwind CSS, featuring safety alerts and emergency service access to enhance user security and travel planning. GitHub link: 

SKILLS

- **Languages:** Python (Pandas, NumPy), SQL, Dart, C
- **Data Engineering:** ETL Pipelines, Data Modeling, Docker, Data Preprocessing
- **Databases:** Neo4j (Graph DB), PostgreSQL
- **AI & Machine Learning:** RAG Systems, NER, LLM/SLM Frameworks (PyTorch, TensorFlow, scikit-learn)
- **Tools & Analysis:** Git, MLflow, Statistical Modeling, Experiment Tracking

LANGUAGES

Turkish - Native | English - Professional working proficiency

CERTIFICATES

RH124 - Red Hat System Administration I 9.0 - Red Hat	December 2024
Basic Network Technologies - Turkcell Akademi	February 2025
Samsung Innovation Campus Artificial Intelligence	December 2025
Semantic Search and Information Retrieval using GenAI	February 2026
Designing Autonomous AI Systems - LinkedIn	June 2026

REFERENCES

- Ahmad Khawatmi

iOS Engineer, HaCon (a Siemens Company), Backend Developer | Co-Founder, SPORSEPETI.app
Worked closely with me during my internship and subsequent freelance collaboration at SPORSEPETI, where we co-developed mobile application. We collaborated on backend infrastructure, feature integration, and performance optimization to deliver scalable and intelligent app solutions.
Email: **ak93x.work@gmail.com** | Phone: **+49 151 659 89857**
- İbrahim Karpuz

Senior Network & Security Engineer, Turkcell
Supervised and mentored me during my internship at Turkcell, where I contributed to network automation, troubleshooting, and performance monitoring tasks.
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