AYŞENUR ARSLAN | AI ENGINEER

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ABOUT ME

AI Engineer specializing in machine learning, natural language processing, and computer vision. Experienced in building end-to-end AI solutions using Python, deep learning frameworks, and data engineering pipelines. Combines technical proficiency with a strategic, analytical mindset to deliver impactful, data-driven technological solutions.

SKILLS

- **Programming:** Python, C, C#, Java, SQL, HTML/CSS
- **Machine Learning:** Scikit-learn, Random Forest, SVM, KNN, Decision Trees
- **Deep Learning:** PyTorch, CNN, Transformers, BERT, YOLOv8, AlexNet
- **NLP:** spaCy, NLTK, Sentiment Analysis, Turkish BERT Models (e.g., savasy/bert-base-turkish-sentiment-cased)
- **Computer Vision:** OpenCV, YOLO, SORT Algorithm, Image Processing
- **Data Engineering:** Pandas, NumPy, Data Collection, Feature Engineering, Data Labeling
- **Databases:** PostgreSQL, MySQL, MongoDB, SQLite
- **Visualization & Analysis:** Matplotlib, Seaborn, Plotly, SciPy, sklearn.metrics
- **Web Technologies:** Flask, FastAPI, Selenium, Astro
- **Tools & DevOps:** Git, REST APIs
- **Languages:** Turkish (Native), English

EDUCATION

Bachelor's Degree in Computer Engineering

Konya Technical University | 2021-2025

- Relevant Coursework: Data Structures, Algorithms, Database Management, Software Engineering, Artificial Intelligence, Machine Learning, Deep Learning, Computer Vision, Natural Language Processing, Computer Networks, Computer Architecture, Operating Systems, Computer Organization, Computer Security, Computer Graphics, Computer Systems

EXPERIENCE

Data Science & AI Intern | AE Software Technology Ltd.

July 2025 – August 2025

- Developed machine learning pipelines for time series analysis and behavioral classification using sensor data.
- Engineered features and implemented automated data labeling systems to improve model training efficiency.
- Applied Random Forest with cross-validation and imbalance handling (class weights), achieving high precision in classification tasks.

Administrative Support Staff (İŞKUR Youth Program) | Konya Technical University – Faculty and Administrative Units

March 2025 – May 2025

- Supported organizing, classifying, and digitizing university archive documents
- Participated as a presenter and team member in the 1st International Student Cultural Festival
- Actively involved in planning, team coordination, and crisis management during the event

Python Instructor | Kodland | Remote

September 2024 – Present

- Delivered hands-on Python and Flask web development curriculum to 50+ students aged 12–18.
- Designed real-world project-based learning materials, resulting in 85% of students completing individual web applications.
- Mentored learners in debugging, API integration, and deployment workflows.

AI Development Intern | PigaSoft | Konya

July 2024 – August 2024

- Developed a license plate recognition model using YOLOv8 and OpenCV for real-time detection.
- Conducted object detection and tracking of vehicles using SORT algorithm and NumPy for data processing.
- Trained and optimized deep learning models with large datasets to improve detection accuracy and performance.

PROJECTS

Campground API | Data Scraping & Analysis Platform

FastAPI, PostgreSQL, REST API

- Built a location-based web scraping and data analysis platform using FastAPI and PostgreSQL.
- Automated campground data collection and exposed it via a RESTful API for end-to-end analytics.
- Enabled scalable data ingestion and querying for geographic insights. [GitHub]

SentimentScope | Social Media Sentiment Analysis

BERT, spaCy, NLTK, Hugging Face

- Performed sentiment analysis on Turkish tweets using hybrid ML/DL models, including fine-tuned Turkish BERT.
- Achieved 84% accuracy in detecting public opinion trends on political and social topics.
- Demonstrated applicability for brand monitoring and social listening. [GitHub]

Twelenium

Selenium, SQLite, Python

- Developed a web scraper using Selenium to collect tweets without API limitations.
- Filtered data by keywords and date ranges, storing results in SQLite and JSON formats.
- Enabled offline data collection for NLP research and analysis. [GitHub]

VisioQuery

YOLOv8, NLP, OpenCV, CLI

- I built a system that detects objects in a photo and performs web searches for them.
- When users submit an image, YOLOv8 identifies the objects and generates a search query using NLP.
- It runs via the Python command line. [GitHub]

Fruit Ripeness Prediction with Hyperspectral Imaging

AlexNet, PCA, CARS, Random Forest

- Applied CARS (Competitive Adaptive Reweighted Sampling) and Principal Component Analysis (PCA) for dimensionality reduction on hyperspectral images to extract highly discriminative spectral features.
- Trained and compared AlexNet and Random Forest classifiers to predict fruit ripeness stages, achieving over 90% classification accuracy.
- Demonstrated the system's potential for real-world deployment in agricultural automation and non-destructive quality control in post-harvest processes. [GitHub]

CERTIFICATIONS

- Security in Development – Techcareer, 2024
- Introduction to AI – BTK, 2023
- Introduction to NLP – BTK, 2024
- Game Development with Unity – BTK, 2022

REFERENCES

References available upon request.