Erdogan Yasin Peker

Artificial Intelligence Engineer | Machine Learning & Computer Vision

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SUMMARY

Artificial Intelligence Engineer and computer engineering graduate with 20+ projects across deep learning, computer vision, large language models (LLM) and audio/signal processing. I own the full model lifecycle: data collection and annotation, preprocessing, training, hyperparameter optimization, evaluation and RESTful API deployment. Shipped CNN, Transformer and YOLO architectures in PyTorch, TensorFlow and scikit-learn, raised classification accuracy with ensembles, and fine-tuned open-source LLMs for a medical domain. Placed 2nd in Turkey at the TEKNOOCAK Technology and Innovation Festival and a national finalist in two Teknofest categories.

TECHNICAL SKILLS

Programming: Python, C, C++, Java, TypeScript, SQL

Machine Learning & Deep Learning: Machine Learning, Deep Learning, Reinforcement Learning, Computer Vision, Natural Language Processing (NLP), Large Language Models (LLM), Fine-tuning, Generative AI, Ensemble Learning, Model Optimization, Hyperparameter Tuning, Transfer Learning

Architectures: CNN, Transformer, YOLO, Llama 3, EfficientNetV2, MobileNetV3, Swin-ViT, MobileViT, ResNet, Whisper

Libraries & Tools: PyTorch, TensorFlow, Keras, scikit-learn, Pandas, NumPy, OpenCV, Roboflow, FastAPI, Flask, Docker, Git, GitHub, SQLite, RESTful API, WebSocket

Data: Data Preprocessing, Data Annotation, Data Augmentation, Feature Engineering, Exploratory Data Analysis (EDA), Data Visualization, Image Processing, Audio Processing

Other: Model Deployment, Technical Documentation, Team Leadership, Project Management, Agile Development

PROFESSIONAL EXPERIENCE

Artificial Intelligence Engineer Intern | Car Studio AI

Kocaeli, Turkey | July 2026 – Present | Internship, On-site

- Building the computer vision pipeline of a 360° vehicle platform: YOLO part detection, damage analysis, severity scoring and cost estimation from one photograph.
- Engineered a model registry that auto-detects architecture from a user-supplied .pth/.pt file (ResNet18/34, MobileNetV3, EfficientNet-B0), plus a batch pre-labeling tool.
- Designed SQLite indexing that scales to tens of thousands of images across an 8-class angle schema, with a human-approved accuracy scoring queue.

Artificial Intelligence Engineer | CerebrAI-VorTX

Sanliurfa, Turkey | January 2025 – May 2026 | Full-time, On-site

- Delivered computer vision and data-processing AI projects across a 17-month full-time tenure.
- Managed the model pipeline end to end across 7 projects: collection, preprocessing, training, evaluation, deployment.
- Ran optimization and hyperparameter tuning that cut inference time by 85% and lifted accuracy by 5 points.
- Authored internal technical documentation and reported research outcomes.

Artificial Intelligence Engineer Intern | Bluesense AI

Istanbul, Turkey | June 2025 – August 2025 | Internship, On-site

- Developed 6-class YOLO computer vision models for the Smart Beauty platform, with end-to-end pipelines for real-time inference.
- Benchmarked ~15 models across EfficientNetV2, MobileNetV3, Swin-ViT and MobileViT to classify skin conditions and surface attributes.
- Combined the top models with hard and soft voting ensembles, raising classification accuracy from 80% to 94%.
- Cleaned, annotated and augmented a 7,000-image dataset from Roboflow and ethically compliant clinical collection.
- Applied XAI techniques for interpretability and co-authored the resulting 13-page paper, prepared for IEEE/Elsevier submission.

Artificial Intelligence Engineer Intern | eCloud Software Technologies

Sanliurfa, Turkey | June 2025 – August 2025 | Internship, Remote

- Trained a Llama 3 8B-based medical-domain Large Language Model (LLM) that interprets clinical text and answers user queries.
- Fine-tuned open-source LLMs across 4 clinical data categories — terminology, diagnoses, symptoms and treatment guidelines — preparing the training data single-handedly.
- Integrated the model into a web platform via RESTful API at sub-200 ms response time, covering deployment and front-end wiring.

Trainee | Game and Application Academy

Istanbul, Turkey | November 2024 – August 2025 | Full-time, Remote

- Graduated from a 10-month hands-on program in AI and data processing, delivering projects across machine learning, deep learning and computer vision within agile processes and peer code review.

Team Leader | Teknofest – Artificial Intelligence in Healthcare
Sanliurfa, Turkey | May 2024 – September 2024 | Competition

- Led a 10-person team to the national finals with a deep learning model for cancer detection in medical images, owning planning and task distribution.
- Applied preprocessing and augmentation that raised model accuracy from 95% to 98%, documenting every stage.

EDUCATION

B.Sc. Computer Engineering | Harran University
Faculty of Engineering, Sanliurfa, Turkey | May 2022 – June 2026 | Graduated

Software development and artificial intelligence focus: machine learning, data analysis, software engineering; Python, C, C++, Java.

Computer Engineering (Erasmus+ Exchange) | AGH University of Krakow
Faculty of Computer Science, Electronics and Telecommunications, Krakow, Poland | October 2025 – March 2026

Coursework in AI, computer vision, systems programming and deep learning.

PROJECTS

Medora — Multimodal Health AI Platform

- Built a multimodal health platform unifying computer vision, LLMs and Whisper speech recognition: 201 FastAPI routes, 10 disease-prediction models.
- Kept the React web and Flutter mobile apps pixel-consistent at WCAG 2.1 AA; deployed with PostgreSQL (pgvector for RAG), Redis and Docker.

Technologies: FastAPI, React, Flutter, PostgreSQL, pgvector, Redis, Docker, LLM, Whisper, Computer Vision

Real-Time Speech and Emotion Analysis Web Application

- Implemented a system that transcribes microphone audio in real time and classifies 8 emotion categories from the resulting text.
- Paired Whisper at 85% transcription accuracy with pre-trained NLP emotion models, over a Flask interface and WebSocket streaming at ~2 s latency.

Technologies: Python, Flask, Whisper, PyTorch, TensorFlow, WebSocket, JavaScript

House Price Prediction with Machine and Deep Learning

- Benchmarked 15 machine learning and deep learning models over 200,000 fragmented real-estate records.
- Assembled the datasets and a full preprocessing pipeline, reaching R^2 0.93–0.94 on the test set with MSE 2×10^{-6} on scaled targets.

Technologies: Python, TensorFlow, scikit-learn, Pandas, NumPy

More projects are available on GitHub and Kaggle: github.com/ErdoganPeker | kaggle.com/erdoanpeker

ACHIEVEMENTS AND AWARDS

- TEKNOOCAK Technology and Innovation Festival — 2nd place in Turkey, Disaster, Security, Resilience and Education Technologies category (2026)
- Teknofest — national finalist in two categories; team leader in the Artificial Intelligence in Healthcare category (2024)
- Artificial Intelligence and Technology Academy — selected as one of 2,000 scholarship recipients from ~25,000 applicants and finished the program (Google, Entrepreneurship Foundation, T3 Foundation)
- Earned a Performance-Based Excellence certificate for the Bluesense AI internship (2025)
- BTK Academy Datathon — 100th place with a student performance evaluation model
- Participated in the PROJEXeleration 2026 entrepreneurship and R&D acceleration program

CERTIFICATIONS

Coursera and Google Academy: Google Advanced Data Analytics (June 2025), Google Project Management (May 2025), Data Science and Artificial Intelligence (May 2025), Web Application Development (May 2025), Entrepreneurship (May 2025)

Digital Transformation Office of the Presidency of Turkey: Feature Engineering, Data Preprocessing, Mass Detection in Mammography Images (May–June 2024)

Udemy: Image Processing (August 2024), General Artificial Intelligence (May 2024), Deep Learning (August 2023), Machine Learning (July 2023), Data Visualization (June 2023), Data Science (June 2023), Python Programming (May 2023)

LANGUAGES

Turkish — Native | English — Advanced (B2+)