

ANAR AMIRLI

Date of Birth: June 1997

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SUMMARY

Experience in research and development of data science, machine learning, deep learning (vision-language), and explainable AI.

WORK EXPERIENCE

AI Safety Saarland

Research Fellow — Intern

Saarbrücken, Germany

Nov 2025 – present

- Working on **evaluating and mitigating social biases in multimodal large language models (LLMs)**.
- Applying quantitative fairness metrics and model evaluation techniques to analyse bias patterns in multimodal models.

IML, German Research Center for Artificial Intelligence (DFKI GmbH)

Research Assistant & Thesis (Machine Learning)

Saarbrücken, Germany

Mar 2023 – Aug 2025

- Designed and developed a **self-explainable vision model for dermatological diagnosis**, surpassing CBM baselines by ~3%.
- Leveraged **vision-language models** (e.g., CLIP, MedCLIP) to benchmark explainability across medical datasets.
- Conducted **large-scale statistical analyses** to evaluate the consistency of explanations from self-explainable models.

SSE, German Research Center for Artificial Intelligence (DFKI GmbH)

Working Student (Data Science)

Saarbrücken, Germany

Nov 2021 – Sep 2022

- Developed and deployed a **self-supervised anomaly detection** system for manufacturing lines at Schott AG.
- Improved anomaly localization accuracy by **13%** using post-hoc explainability methods.
- Fine-tuned transformer-based LLMs** (T5, BART) to automatically generate textual incident report from anomalous sensor data.

TESLAB, Nanyang Technological University

Research Assistant (Computer Vision)

Singapore (remote)

Feb 2021 – May 2022

- Developed a **multimodal generative AI** framework for 2D/3D topology optimization, achieving 91–99% accuracy and near real-time performance.
- Conducted an extensive literature review on **diffusion models**, **VAEs**, and **GANs** to guide framework design.

ATL Tech

Machine Learning Intern

Baku, Azerbaijan

Jan 2019 – Jun 2019

- Assisted in developing a **speech recognition system** for flight training simulations at the national aviation academy.
- Engineered audio features (spectrograms, MFCCs) and trained LSTM/HMM models on cockpit command data.

ImageLab, Middle East Technical University

Data Science & Machine Learning Intern

Ankara, Turkey

Jun 2018 – Sep 2018

- Designed and developed a ball position **estimation ML model** for football tracking systems.
- Processed **large-scale match data** over multiple seasons, performing **feature engineering**, and **visualization**.

NSPSOLUTIONS LLC

Software Developer

Baku, Azerbaijan

Sep 2017 – Jun 2018

- Developed multi-feature Android apps with backend integration (HTTP APIs to Java)
- Contributed to the mobile app development for Opal Transfer LTD.

EDUCATION

Universität des Saarlandes

M.Sc. Computer Science

Saarbrücken, Germany

Oct 2019 – Aug 2025

- Thesis Grade: 1.0 | Deutscher Akademischer Austauschdienst (DAAD) Scholarship

Baku Engineering University

B.Eng. Computer Engineering

Baku, Azerbaijan

Sep 2014 – Jun 2019

- Grade: 1.3 | Graduated with Honors | Government Scholarship for Academic Excellence

CERTIFICATES

High Level Computer Vision (MPI); Optimization for Machine Learning (CISPA); Predictive Analytics with R (DFKI); Developing Machine Learning Solutions (AWS); Generative AI with Large Language Models (AWS)

SKILLS

- **Programming:** Python (PyTorch, TensorFlow, SciPy, Scikit-learn, OpenCV, Hugging Face), C++, Java, MATLAB, R
- **Data:** SQL, Spark, MySQL, MongoDB
- **MLOps & Tools:** MLflow, Docker, CI/CD, FastAPI, Flask, AWS, Airflow
- **Languages:** Azerbaijani (native), English (C1), Turkish (C1), German (B1)
- **Others:** GPU Computing, Secure Coding, Linux

PUBLICATIONS (Full Scholar Link)

Unsupervised multi-sensor anomaly localization with explainable AI. Ameli, M., Pfanschilling, V., Amirli, A., Maaß, W., Kersting, K. Artificial Intelligence Applications and Innovations. Springer, 2022. DOI: 10.1007/978-3-031-08333-4_41

HOBBIES

Reading in social theory (Structuralism, Biopolitics, Feminism); Doing pottery and ceramics; Playing tar, electric guitar, and mixing vinyl records; Cooking (used to work in a family restaurant)