

AYDIN JAVADOV

PhD Candidate at ETH Zurich

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 ajavadov.github.io/

EXPERIENCE

PhD Candidate in Machine Learning & ETH AI Center Associated Researcher ETH Zurich

 Nov 2024 – Present  Zurich, Switzerland
Supervised by:
Prof. Dr. Florian von Wangenheim
(Mobilier Lab for Analytics @ ETH Zurich)
Prof. Dr. Bjoern Schuller
(GLAM @ Imperial College London & CHI @ TUM)
Focusing on: Human-AI Alignment, Explainable AI, Multi-modality, Large Language Models

Machine Learning Research Student

BMW Group

 Apr 2023 – May 2024  Munich, Germany
Have leaded the project on Explainable AI integration to the graph learning for engine-related problem - pushed to the production pipeline.
Focusing on: Large Language Models, Time Series Analysis, Graph Representation Learning, Explainable AI

Master Thesis: Explainable AI for Graph Representation Learning and Clustering Algorithms

BMW Group

 Oct 2022 – Apr 2023  Munich, Germany
Technologies: Python, Pytorch, AWS, Git
Graded: 1.0 (German System)

Guided Research: Explainable AI and Computer Vision for Clinical Decision Support in Dermatology

Technical University of Munich, Chair of Computational Imaging and Inverse Problems

 Apr 2022 – Nov 2022  Munich, Germany

The subject was understanding and implementation of several interpretability techniques for deep learning models for skin lesion classification. The work was on the theme of human-centered explainable AI and involved close collaboration with Munich University Clinic physicians.

Data Science Working Student

novuter GmbH

 September 2021 – May 2022  Munich, Germany

Extracted raw data and transformed the data stories on different domains (e.g. finance) to optimize the decision making.

Technologies: PostgreSQL, JavaScript, Python, R

Artificial Intelligence Intern

ATL Tech - AI Lab

 Oct 2019 – Feb 2020  Baku, Azerbaijan

- Took part in the Advanced research of Speech recognition in Dialog Systems for Azerbaijani Language

Technologies: Python, pandas, numpy

EDUCATION

PhD Candidate in Machine Learning

ETH Zurich

 November 2024 - Present

M.Sc in Data Engineering & Analytics

Distinction (Top 10%)

Technical University of Munich

 April 2021 – July 2024

German Grade: 1.5

B.Sc (Exchange Student) in Computer Science

Korean Advanced Institute of Science and Technology

 Feb 2018 – June 2018

B.Sc in Computer Engineering

Distinction (Top 1%)

ADA University

 Sept 2016 – June 2020

German Grade: 1.1

AWARDS & PARTICIPATIONS

- **84th out of 78545 Students**

(top 0.001%)

National University Entrance Exam of Azerbaijan

July 2016

- **🏆 (winner) Hackathon HackaTUM:**

Technical University of Munich & Carl Zeiss AG (ZEISS)

Nov 2021

- **228th out of 40875 Students**

(top 0.005%)

Primary School Republic Examination of Turkiye

Nov 2010

- **Global Korea Scholarship**

Ministry of Education of Korea Republic

February - June 2018

- 2x Rector's List of Honour & 3x Dean's List of Honour and Merit-Based Scholarship

ADA University

2017-2020

- Organizer of 'Purple Comet' International Math Olympiad

ADA University

April 2019

REFEREES

Academic

- Prof. Dr. Bjoern Schuller
Imperial College London & TUM
- Prof. Dr. Viktor Leis
TUM
- Prof. Dr. Felix Dietrich
TUM
- Prof. Dr. Florian von Wangenheim
ETH Zurich

Industry

- Prof. Dr. Tobias Lasser
NVIDIA
- Dr. Raphael Weingartner
BMW
- Dr. Iryna Bastian
BMW

PUBLICATIONS

- RAxSS: Retrieval-Augmented Sparse Sampling for Explainable Variable-Length Medical Time Series Classification @ *Learning from Time Series for Health NeurIPS 2025*
- Compose and Fuse: Revisiting the Foundational Bottlenecks in Multimodal Reasoning - *preprint available - under review for ICLR 2026*
- "Adaptive Confidence-Weighted LLM Infusion for Financial Reinforcement Learning". **The 11th IEEE International Conference on Intelligent Data and Security (IEEE IDS'25)**. Special Track: Financial Reinforcement Learning and Foundation Models (FinRLFM). New York, USA, 2025.
- "BioSyncHRI: Synchronizing Human Robot Interaction via Real-Time Biosignal Adaptation", Workshop in Envisioning the Future of Interactive Health, **CHI 2025**, Yokohama, Japan, 2025.
- "Generative AI for Wellness Applications via User-Generated Immersive Virtual Environments", Generative AI and HCI Workshop, **CHI 2025**, in Yokohama, Japan, 2025.
- "Approximation of CIEDE2000 color closeness function using Neuro-Fuzzy networks", **Applied Intelligence**, Volume 51 <https://link.springer.com/article/10.1007/s10489-021-02326-1>, 2021
- The Playground, **Math Horizons**, 27:1, 30-33, DOI:10.1080/10724117.2019.1629214, 2019.

TECHNICAL SKILLS

ML/AI Concepts

- Representation Learning
- LLM
- XAI
- Deep Learning
- Computer Vision
- Machine Learning
- Time Series
- Deep Generative Models
- Uncertainty Quantification

Application Areas

- Medicine
- Cognitive Modelling
- Human Factors
- Finance
- Signal Processing
- Dynamic Systems

Other

- Python
- C++
- Git
- Bash
- PyTorch
- Linux
- Azure
- AWS
- Spark

LANGUAGES

Turkish (native), Russian (native) Azerbaijani (native), English (fluent), German (elementary), Korean (beginner)