

AYDIN JAVADOV

PhD Candidate at ETH Zurich

@ajavadov@ethz.ch in aydin-javadov +41798771915 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
(Mobiliar 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) Hackaton 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)