AYDIN JAVADOV

PhD Candidate at ETH Zurich

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EXPERIENCE

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

📅 Nov 2024 – Expected 2027 📍 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: Machine Learning, Large Language Models, Multimodalilty, Human-AI Alignment, Explainable AI

Machine Learning Research Student
BMW Group

📅 Apr 2023 – May 2024 📍 Munich, Germany

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

The subject of this project is the understanding and implementation of several interpretability techniques for deep learning models for skin lesion classification, in computer vision context. 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.
- Created business related data stories for Digital Assistant in www.novuter.com with SQL

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

- Anonymous Paper, **EMNLP 2025** (under review)
- "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 SQL | Python | Git | Bash | PyTorch | Java | Azure | AWS | Spark

LANGUAGES

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