Mukhammadali Sayfiddinov

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Education

Master of Computer Science, ETH Zürich   Sep 2025 – Dec 2027
  - Relevant coursework: Probabilistic AI, Computer Vision, Large-Scale AI Engineering.

Visiting Student, EPFL   Aug 2024 – Dec 2024
  - Interned in Computer Vision and Deep Learning.

AI Summer School participant, Texas A&M @Qatar   May 2024 – Jun 2024
  - Implemented Knowledge Distillation extracting theoretical foundations from the original paper.

Bachelor of Computer Engineering, Polytechnic of Turin   Oct 2022 – Current
  - Final Grade: 110 Honors/110
  - Provided CS support to QubiTo (Quantum Computing student team) simulating quantum circuits with Q#.
  - Member of Collegio Einaudi - a merit-based school requiring 70 hours/year extra load.

Experience

Research Assistant, <u>ETH AI Center</u>   Jul 2025 – Current
  - Working on Apertus model with focus on reasoning and vision reinforcement learning.

Research Intern, <u>LiGHT Lab</u>, Yale & EPFL   Aug 2024 – Dec 2024
  - Developed compact, high-precision vision model to be used by Doctors Without Borders.
  - Experimented with mobile DL architectures, achieving a 3x improvement in performance
  - Designed and built data engine supporting various parts of the larger project.

Research Assistant, <u>Fabris Lab</u>, Polytechnic of Turin   Sep 2023 – Jul 2024
  - Developed package AMAP with classical and deep learning tools to measure nanostar dimensions from images.
  - Cleaned, interpolated, and optimized Raman spectroscopy signals for material characterization.

Projects

⌂ **antibiogo** tool to assist in antimicrobial resistance testing for low-resource settings.

⌂ **reval** light-weight reasoning evaluation pipeline for Apertus training.

⌂ **FP8** stochastic rounding implementation for FP8 in torchao.

⌂ **verl_tooling** RL training pipeline for Apertus vision tooling.

⌂ **course_projects** course projects for bachelor and master courses taken

Languages: Python, Java, C, SQL   **Tools:** TensorFlow, PyTorch, Pandas, MATLAB, Git

Citations

Contributor - *Apertus - democratizing open and compliant LLMs for global language environments*, A. Bosselut, M. Jaggi, I. Schlag, Sep 2025

Independent Learning

Course names include hyperlinks to certifications and proofs of completion

Machine Learning	Stanford Online
Entrepreneurship	University of Pennsylvania
Applied Probability	MIT OpenCourseWare
Linear Algebra	MIT OpenCourseWare
Intro to Quantum Computing	Google Quantum AI & QxQ