Jakhongir Saydaliev

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Education

MSc. in Data Science Sep. 2023 - Aug. 2026
EPFL Lausanne, Switzerland
- Avg. Grade: 5.54/6.0
- 2 research projects: on Multilinguality and Multimodality

BSc. in Computer Engineering Sep. 2019 - Jul. 2023
Politecnico di Torino Turin, Italy
- Avg. Grade: 109/110
- ToPoliTo scholarship (ranked 8th in the admission)

Publications

[1] Negar Foroutan*, **Jakhongir Saydaliev***, Ye Eun Kim, and Antoine Bosselut. Conlid: Supervised contrastive learning for low-resource language identification. *Submitted to* ***EACL***, 2025. https://arxiv.org/abs/2506.15304. (*Equal contribution).

[2] Tristan Karch* **Jakhongir Saydaliev*** Isabella Di Lenardo, Frédéric Kaplan. Llm-powered agents for navigating venice's historical cadastre. ***Computational Humanities Research***, 2025. https://arxiv.org/abs/2505.17148. (*Equal contribution).

Research Experience

ML Research Intern Sep. 2025 - Feb. 2026
Logitech Lausanne, Switzerland
- Research Topic: Computer Use of LLM Agents

ML Summer Research Intern Jun. 2025 - Sep. 2025
SwissAI Lausanne, Switzerland
- Research Topic: Reasoning for vision language models through reinforcement learning
- Project Code: GitHub

Research Student Assistant Jun. 2024 - Jun. 2025
NLP Lab, EPFL Lausanne, Switzerland
- Advisor: Antoine Bosselut
- Research Topics: Multilinguality, Multimodal Reasoning
- Project Websites: GitHub 1, GitHub 2

Research Student Assistant Feb. 2024 - Sep. 2024
DHLAB, EPFL Lausanne, Switzerland
- Advisor: Frédéric Kaplan
- Research Topic: QA system with LLM Agents
- Project Website: GitHub

Work Experience

Data Analyst Nov. 2022 - May. 2023
Fater Pescara, Italy
- Analyzed the customer data to extract insights
- Contributed to the development of customer churn prediction model

IoT Engineer Oct. 2021 - Feb. 2022
Links Foundation, Turin, Italy
- Developed an interface to visualize the location and other data of an IoT device

Teaching Experience

Teaching Student Assistant Fall, 2024
Applied Data Analysis, EPFL
- Most popular Information and Communication (IC) MSc course in Fall 2024, with 700+ students enrolled.

Open-Source Contributions

Apertus 2025
Links: Paper | Hugging Face
I was a part of the Apertus team through my ConLID project for language identification.

INCLUDE 2025
Links: Paper | Dataset
I have helped collect dataset for Uzbek language.

Selected Projects

Multimodal Reasoning through Reinforcement Learning 2025
Links: Technical Report | Code
We explore three multimodal CoT paradigms: Multimodal-to-Multimodal, Text-to-Multimodal, and Multimodal-to-Text. We find that image generation during reasoning often harms performance, while Multimodal-to-Text with visual grounding improves the results when trained with GRPO (RL algorithm).

GalactiTA: AI-Driven Solutions for Scientific Question Answering 2024
Links: Technical Report
We first collected multiple-choice question-answering (MCQA) datasets from scientific fields, then fine-tuned the Galactica-1.3B model for the question-answering task, followed by DPO training. Next, we implemented RAG tuning, which integrates external knowledge and enhances performance by 11.52%.

A recipe for a successful tech-review channel 2023
Links: Website | Code
Causal Analysis of Tech channels' progress on YouTube using the videos published between May 2005 and October 2019. Through this analysis, we have identified several success factors of tech channels.

Awards and Scholarships

- 2^{nd} in a Hackathon on efficient LLM training, Switzerland, 2025
- 1^{st} in Lauzhack Hackathon on satellite imagery with LLMs and Computer Vision, Switzerland, 2024
- KTH Scholarship, awarded to 2.7% of applicants, Sweden, 2023
- ToPoliTo Scholarship, 8^{th} in the university admission, Italy, 2019

Technical Skills

Deep Learning Frameworks: PyTorch, Transformers (HuggingFace), vLLM, SGLang, VeRL
Data Science: Pandas, NumPy, Matplotlib, Seaborn
HPC Schedulers: SLURM, RunAI