Amir Mohseni

Maastricht, The Netherlands | amir.mohseni.work@gmail.com | +31 06 8641 6012

linkedin.com/in/amirreza-mohseni | github.com/Amir-Mohseni | huggingface.co/AmirMohseni

Education

Bachelor of Computer Engineering   Sep 2021 – May 2023
Shahid Beheshti University, Tehran, Iran

- **GPA:** 17.8 / 20.0
- Teaching Assistant for **Discrete Mathematics**, **Advanced Programming**, and **Data Structures and Algorithms**.
- Qualified and participated in the **ICPC World Finals**.
- Discontinued the program to **transfer to Maastricht University** for the BSc in Computer Science.

Bachelor of Computer Science   Sep 2023 – Jun 2026
Maastricht University, Limburg, The Netherlands

- **GPA:** 8.88 / 10.0
- Mentor for first-year Bachelor students.
- Created the **ICPC Club** at Maastricht University; organized weekly training sessions and contests, and **qualified for NWERC (Northwestern Europe Regional Contest)** in all eligible years.
- Selected for the **MARBLE Research Program (Honours Track)** — an honours initiative for high-performing students — currently conducting a research project on LLM use in legal-advice contexts, with plans for publication submission.
- **Key Courses:** Databases, Machine Learning, High-Performance Computing, Cloud Computing, Recommender Systems.

Experience

Student Researcher, Turing – Remote   Apr 2025 – Present

- Leading a team of three student researchers focused on **LLM modeling and reinforcement learning**, coordinating large-scale training and evaluation experiments.
- Fine-tuning in-house models using reinforcement learning to improve **tool-use and code-generation capabilities**.
- Trained **reward models** to predict human preferences in educational tasks using preference data from EduArena, increasing preference prediction accuracy from 62% to 69%. [W&B Summary]
- Developed **RLVR (Reinforcement Learning with Verifiable Rewards)** environments for code-writing tasks, including terminal-based and Jupyter-style interfaces.
- Presented the **EduArena** research platform at ICML 2025.

Generative AI Researcher, Scale AI – Remote   Sep 2024 – Apr 2025

- Collaborated with ML researchers and PhD students to fine-tune and benchmark open-source models such as **Gemma 2** and the **Llama 3** family, improving reasoning performance on benchmarks such as **Math-500**, **MMMU**, and **GPQA Diamond** using SFT and DPO (based on the **STaR** and **V-STaR** papers).
- Delivered executive reports to enterprise clients, summarizing experimental results, performance evaluations, and key research insights.

Research Assistant, Maastricht University – Maastricht, NL   Jun 2024 – Sep 2024

- Collected and cleaned a large-scale dataset from companies' Facebook pages using a licensed API to analyze how companies engaged on social media in response to different news events.
- Trained and evaluated linear regression models to predict post engagement and analyze social trend patterns based on news data.

Achievements

- **Ranked 482nd** among ~120,000 mathematics participants (**Top 0.4%**) in the National University Entrance Exam, Iran (2021)
- **ICPC World Finalist** (45th Annual, 2022) — ICPC Profile
- **Bronze Medalist**, ACM-ICPC Regional Contest (2023)
- Reached the **Top 120** in the National Olympiad of Informatics, Iran (2020)
- **Student Researcher position at Google** — offer accepted; start deferred due to pending export license clearance.

Projects

Professional Projects

- **EduArena**   ⎘ Blog Post
  Early engineer and core contributor to EduArena, a large-scale research crowd-sourcing platform for evaluating LLMs on educational tasks. Implemented automated pipelines for:
    - **Model selection and routing**: based on the user query, selected two models expected to yield the highest distinction in reasoning performance (Elo difference) using a Bradley–Terry (BT) model.
    - **Reinforcement learning data generation**: leveraged token- and answer-level entropy from high-performing models to produce verifiable training data for RLVR.

Academic Projects

- **User–LLM Legal Interaction Analysis (MARBLE Research Project, Work in Progress)**: Developed a classifier to analyze how users seek legal advice from LLMs using real-world chatbot data. Created a taxonomy to categorize conversations by legal context and identify common patterns in user legal queries.

- **Reasoning Router**   ⎘ Blog Post
  Addressed the inefficiency of hybrid LLM systems that require manual selection between *thinking* and *non-thinking* modes. Developed an automated router that predicts the optimal reasoning mode for each query, achieving performance within **5%** of the best model's accuracy while reducing token usage by nearly **50%** and improving response latency — *Hugging Face Collection*.

Skills

Programming Languages: Python, C/C++, Java

Databases & Cloud: SQL, AWS, GCP Vertex AI

Machine Learning & AI: PyTorch, NumPy, TRL, vLLM, verl

Other Skills: Competitive programming, problem solving, collaboration, communication