

Ervin Macić

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EDUCATION

University of Oxford

Candidate for Master of Science in Mathematics and Computer Science
GPA: 78.8% – Distinction

Oct. 2024 – June 2028
Oxford, United Kingdom

University of Sarajevo

Candidate for Bachelor of Engineering in Computer Science
GPA: 9.8/10.0 – Top of class

Oct. 2023 – July 2024
Sarajevo, Bosnia and Herzegovina

SKILLS

Programming: Python (PyTorch, TensorFlow, NumPy, Pandas), C++, C, Haskell, Scala, JavaScript, Git, LaTeX

Languages: Bosnian (Native) | English (professional proficiency, TOEFL 115/120) | German (limited proficiency, B1)

PROJECTS AND EXPERIENCES

Discover Citadel

Participant

Mar. 2025

London, United Kingdom

- Learned about the Citadel and Citadel Securities business through panel discussions, talks, and hands-on challenges
- Gained insight into the uses of deep learning models in quantitative finance workflows
- My team won 1st place in the engineering and 2nd place in the trading competition out of 10 teams in total

AI Alignment Research Bootcamp Oxford

Participant

Jan. 2025

Oxford, United Kingdom

- Participated in a 2-week intensive bootcamp to rapidly build research skills in AI safety
- Built gpt-2-small, learned cutting-edge interpretability and AI safety techniques like Sparse Autoencoders and Reinforcement Learning from Human Feedback
- Replicated key research papers in mechanistic interpretability and reinforcement learning

Isaac code

Junior Machine Learning and IoT Engineer

Feb. 2021 – Oct. 2024

Glamoč, Bosnia and Herzegovina

- Worked on a smart cattle monitoring system “Cow Gazer” making extensive agriculture more efficient and increasing animal welfare, co-funded by the European Union through the EU4AGRI grant
- Configured weight scales, cameras, and Raspberry Pi devices with AI accelerators enabling data collection and processing
- Implemented object detection to identify cattle and forecasting algorithms on weight data to notify farmers of trends and unusual behaviour

ARTI Analytics

AI Research Associate

Sept. 2023 – Oct. 2024

Sarajevo, Bosnia and Herzegovina

- Designed experiments and evaluation metrics and implemented them in PyTorch and TensorFlow
- Developed extension to the TensorFlow neural network module allowing the creation, visualisation, and analysis of unique neural network structures while maintaining training efficiency
- Sped up model training with minor losses in accuracy using decomposition and quantization algorithms

Bosnian-Herzegovinian Math Olympiad Society

Lecturer and Problem Proposer

Seasonal

Sarajevo, Bosnia and Herzegovina

- Lectured and organised mock exams at the International Math Olympiad (IMO) preparation camp for the Bosnian-Herzegovinian team
- Proposed and graded three out of the six problems for the Bosnian-Herzegovinian IMO Team Selection Test 2024
- Acted as the leader of the IMO team during the 3-week International Math Summer Camp 2024 in Beijing, China, where I attended problem-selection meetings, graded contestants’ papers and proposed a problem for the mock IMO competition

SELECTED AWARDS AND HONOURS

Bronze medal, International Mathematical Olympiad 2023

Chiba, Japan

Bronze medal, International Mathematical Olympiad 2021

St Petersburg, Russia (Online)

Silver medal, Balkan Mathematical Olympiad 2021

Cyprus (Online)

Second prize, Non-Trivial Fellowship 2023
Open Philanthropy Undergraduate Scholarship 2024
BIG Scholar, Global Talent Fund 2024

Online