Ervin Macić

ervin.macic@pmb.ox.ac.uk • (+44) 7566839371 • linkedin.com/in/ervin-macic/

EDUCATION

University of Oxford   Oct. 2024 – June 2027
Candidate for Bachelor of Science in Mathematics and Computer Science   *Oxford, United Kingdom*
- Relevant Coursework: Probability | Functional Programming in Haskell | Linear Algebra

University of Sarajevo   Oct. 2023 – July 2024
Candidate for Bachelor of Engineering in Computer Science   *Sarajevo, Bosnia and Herzegovina*
GPA: 9.8/10 – Top of class
- Relevant Coursework: Probability and Statistics | Multivariable Calculus | Linear Algebra | Advanced Programming in C++ | Mathematical Logic and Computability Theory

SKILLS

Programming: Python (PyTorch, TensorFlow, NumPy), C++, C, Haskell, JavaScript, Django, Git, LaTeX
Languages: Bosnian (Native) | English (TOEFL 115) | German (B1+)

PROJECTS AND EXPERIENCES

Isaac code   Feb. 2020 – Present
Junior Machine Learning and IoT Engineer   *Glamoč, Bosnia and Herzegovina*
- Working 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 Coral AI accelerators enabling data collection and storage
- Implemented object detection to identify cattle with RFID cross-verification
- Implemented forecasting algorithms on weight data to notify farmers of unusual behaviour and notable trends

ARTI Analytics   Sept. 2023 – Present
Research Associate   *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 user to create, visualise, and analyse unique neural network structures while maintaining reasonable efficiency
- Sped up model training with minor losses in accuracy using decomposition algorithms

Bosnian-Herzegovinian Math Olympiad Society   Jan. 2022 – Present
Lecturer and Problem Proposer   *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 Olympiad in Mathematics 2024
- Acted as the leader of the IMO team during the 3-week International Math Summer Camp 2024 in Beijing, China, attending problem-selection meetings, grading and proposing problems for mock competitions

Maths Beyond Limits Balkans   2021 – 2023
Lecturer and organiser   *Konjic, Bosnia and Herzegovina*
- As a part of the organising committee of the first international mathematics camp in the Balkan region, reviewed and evaluated students' applications, wrote and formatted the camp brochure
- Prepared and presented a three-day interactive lecture with a co-lecturer about applications of mathematical expectations to an audience of 20 students from various countries

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   *Online*
Open Philanthropy Undergraduate Scholarship 2024
BIG Scholar, Global Talent Fund 2024