Ervin Macić

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

EDUCATION

University of Oxford   Oct. 2024 – June 2028
Candidate for Master 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 | Multi-variable Calculus | Linear Algebra | Advanced Programming in C++ | Mathematical Logic and Computability Theory

SKILLS

- Programming: Python, 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*
Link to landing page
- Working on a smart cattle monitoring system "Cow Gazer" making extensive agriculture more efficient and increasing animal welfare, co-funded by the EU through the EU4AGRI grant
- Implemented object detection and classification to identify cattle with RFID cross-verification
- Implemented forecasting algorithms on weight data and notified farmers of unusual behaviour and notable trends
- Configured weight scales, cameras, Raspberry Pi devices with Coral AI accelerators

ARTI Analytics   Sept. 2023 – Present
Research Associate   *Sarajevo, Bosnia and Herzegovina*
Link to website
- Implemented various experiments in PyTorch and TensorFlow
- Developed extension to the TensorFlow NN module that allows the user to create unique neural network structures while maintaining reasonable training convergence with a comprehensive analysis of performance and architecture visualisations
- Sped up model training with minor losses in accuracy using decomposition algorithms

Bosnian-Herzegovinian Math Olympiad Society   Jan. 2022 – Present
Lecturer, Organiser, Proposer   *Sarajevo, Bosnia and Herzegovina*
- Lectured and organised mock exams at the IMO preparation camp
- Proposed and graded three out of the six problems for the 29th Bosnian-Herzegovinian Olympiad in Mathematics 2024 (IMO Team Selection Test)
- Leader of the IMO team at the International Math Summer Camp 2024 held in Beijing, China

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 and worked on the camp brochure - *Link to 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 – *Link to lecture*

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 – *Link to project pitch paper*   *Online*
Open Philanthropy Undergraduate Scholarship
BIG Scholar, Global Talent Fund