

Sandro Paradžik

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Experience

Machine Learning Intern: ModelCat *San Francisco Bay Area (Remote), Aug 2025 – Present*

- Develop hardware-aware optimization strategies for the algorithmic core of an AI-in-the-loop **AutoML** platform, tailoring model architectures for specific edge device constraints (latency, memory, energy).
- Design a data-efficient simulation framework for **uncertainty quantification**, utilizing probabilistic modeling and statistical estimation techniques to predict on-device model performance and reduce reliance on exhaustive hardware inference.

Lecturer: Math School for Gifted Students *Sarajevo, 2022 – Present*

- Deliver lectures on **olympiad-level combinatorics** and advanced problem-solving strategies.
- Program participants consistently achieve medals at international competitions.

Research Intern: Max Planck Institute for Biological Cybernetics *Tübingen, Jul – Sep 2024*

- Applied **Dynamic Mode Decomposition** (DMD) to analyze zebrafish calcium imaging data, discovering functional subnetworks and significant spatiotemporal patterns like oscillatory dynamics in the optic tectum.
- Demonstrated DMD's superior capability in capturing coupled spatial and temporal neural dynamics compared to traditional methods (e.g., PCA, ICA), contributing to research in the RoLi Lab.
- Selected for a highly competitive program with a **1.35%** acceptance rate in 2024.

Education

BSc in Theoretical Computer Science: University of Sarajevo *GPA 8.2/10, Oct 2021 – Sep 2025*

Summer Schools.....

Mediterranean Machine Learning Summer School *Split, 8-12 Sep 2025*
Acceptance rate: 18%

Eastern European Machine Learning Summer School *Sarajevo, 21-26 Jul 2025*
Acceptance rate: ~20%

Math Competitions

Mediterranean Mathematics Competition: **Bronze, HM, Bronze** *2021, 2019, 2018*

Federation of Bosnia and Herzegovina: Ranked **2nd, 1st, 3rd** *2021, 2019, 2018*

Skills

Programming..... **Languages**.....
Python, Git Bosnian (native), English (C1)