Lazar Krstić

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Petra Gračaina, 9, 35273 Bunar,
Jagodina, Serbia

Education

2013. - 2017.
BSc. Informatics (9.18)
Faculty of Science, University of Kragujevac

2017. - 2019.
MSc. Informatics (9.50)
Faculty of Science, University of Kragujevac

2019. - present
Ph.D. Computer Science (10.00)
Faculty of Science, University of Kragujevac

Teaching assistant & Ph.D. student of Computer Science

Lazar Krstić's main research interests are in the field of **Machine Learning**, including Artificial Neural Networks (ANN), Neural Architecture Search (NAS), hyperparameters optimization, ensemble models, Physics Informed Neural Networks (PINN), Large Language Models (LLM) and Genetic Algorithms (GA) with application in machine learning model optimization.

Summary

At the beginning of career, Lazar Krstić mainly worked as a full stack developer, and continued as a **machine learning researcher** mostly in AutoML and MLOps platforms. With years of experience in research and development projects, Lazar Krstić has been involved in developing and maintaining data pipelines, designing and implementing machine learning models, and optimizing performance and scalability of data processing systems. In one of Lazar Krstić's previous roles, he successfully led the development of a large-scale data infrastructure that improved the efficiency of training, monitoring, scalability, and maintaining a large number of machine learning models. His current role is LLM fine-tuning.

Lazar Krstić is a **Teaching assistant** at the Faculty of Science, University of Kragujevac, and a PhD student in Computer Science, specializing in Machine Learning Optimization. His PhD research focuses on developing a novel algorithm for creating an optimized ANN ensemble. Lazar Krstić is author of 4 published papers in a peer-reviewed journals and 6 conference papers.

Publications

Public papers in peer-reviewed journals:

- A. Kaplarević-Mališić, B. Andrijević, F. Bojović, S. Nikolić, **L. Krstić**, B. Stojanović and M. Ivanović, "Identifying Optimal Architectures of Physics-Informed Neural Networks by Evolutionary Strategy", *Applied Soft Computing, 146 (2023) 110646. doi:https://doi.org/10.1016/j.asoc.2023.110646*
- **L. Krstic,** M. Ivanovic, V. Simic, B. Stojanovic, "Evolutionary approach for composing a thoroughly optimized ensemble of regression neural networks", *Egyptian Informatics Journal* 28 (2024) 100581. *doi:https://doi.org/10.1016/j.eij.2024.100581*
- M. Zivkovic, F. Andric, M. Svicevic, D. Krstic, **L. Krstic**, B. Pirkovic, T. Miladinovic, M. E. A. Aichouche, "FOTELP-VOX-OA: Enhancing radiotherapy planning precision with particle transport simulations and optimization algorithms", *Computer Methods and Programs in Biomedicine 268 (2025) 108838. doi:https://doi.org/10.1016/j.cmpb.2025.108838*
- F. Stasevic, A. Milenkovic, A. Maksimovic, M. Svicevic, **L. Krstic**, "Interest in stem and its relations to the educational achievement and socio-demographic characteristics of grammar school students in Serbia", *Journal of Baltic Science Education 24 (2025) 360-376 doi:https://doi.org/10.33225/jbse/25.24.360*

Participation in scientific conferences:

- **L. Krstić**, M. Jolović, B. Arsić, "LLM Code Generation: The Challenge of Accurate Scoring" in *4th International Conference - Conference On Advances in Science and Technology*, Herceg Novi, Montenegro, 2025.
- **L. Krstić**, M. Svičević, M. Živković, F. Andrić, T. B. Miladinović, D. Krstić, "Advance Parameter Optimization meets Electron Dose Distribution in Voxel-based Transport Simulations" in *XV Serbian mathematical congress*, Belgrade, Serbia, 2024.
- M. Živković, M. Svičević, **L. Krstić**, F. Andrić, T. Miladinović, D. Krstić, "The evolutionary approach for tumor dose with FOTELP-VOX transport simulations" in *3rd International Conference - Conference On Advances in Science and Technology*, Herceg Novi, Montenegro, 2024.
- F. Bojović, M. Milašinović, B. Jovanović, **L. Krstić**, B. Stojanović, M. Ivanović, D. Prodanović, N. Jaćimović, N. Milivojević, "Physics informed neural networks for 1D flood routing" in *1st Serbian International Conference on Applied Artificial Intelligence, Kragujevac*, Serbia, 2022.
- B. Laković, N. Andrijević, **L. Krstić**, B. Jovanović, D. Stefanović, N. Bojović, M. Ivanović, B. Stojanović, "Energy management platform based on automated machine learning" in *1st Serbian International Conference on Applied Artificial Intelligence (SICAAI)*, Kragujevac, Serbia, 2022.
- **L. Krstić**, B. Stojanović and M. Ivanović, "Genetic algorithm optimization of the artificial neural network ensembles," in *YOUng ResearcherS Conference (YOURS) 2020*, Belgrade, 2020.

Teaching

2020 - present
Faculty of Science, University of Kragujevac
Teaching assistant

Narrower scientific field:
- **Programming Methodology**.

Exercises in the following subjects:
- Machine Learning 1,
- Introduction in Artificial Intelligence,
- Introduction in Software engineering,
- Programming of Distributed Systems,
- Presentation and Interpretation of data,
- Software Testing and Quality assurance

2018 - 2020
Faculty of Science, University of Kragujevac
Teaching associate

Narrower scientific field:
- **Programming**.

Exercises in the following subjects:
- Machine Learning 1,
- Intelligent Systems 1,
- Programming of Complex Software Systems,
- Algorithmic Strategies,
- Computer Graphics,
- Visual Programming,
- Programming Methodology

R&D projects

at Faculty of Science, University of Kragujevac

2016 - 2022

- The Innovation Fund of the Republic of Serbia
  Smarticity – Energy management platform based on Artificial Intelligence
- Hubcup, Horizon2020 No 872698
  Opticity – Finding an optimal pattern in energy consumption and production in case of facilities with Renewable Energy Sources and energy storage capabilities
- DIGITbrain, Horizon2020 No 952071
  DSS – Digitization and optimization of snow guards manufacturing process
- EDI-2020-14-MIGROS, Horizon2020 No 779790
  FoxTail – Automated Machine Learning system for production, management, and deployment of predictive models on industrial scale
- Insource project
  Black Fox – AutoML tool for optimizing machine learning models
- CloudiFacturing, Horizon2020 No 768892
  OSICE: Optimization of production process of metal structures using OSICE
- Jaroslav Černi Water Institute
  Hydropower plant Vlasina – long-term hydropower analysis
- Jaroslav Černi Water Institute
  The "Iron gate" (Danube River) hydropower plant decision support system

Industry experience

- 2024 - present
  HTEC
  Senior Machine Learning Engineer
  LLM Specialized Model Development (Client: Advanced Micro Devices, Inc. (AMD)) – Fine-tuning Large Language Models tailored for AMD's hardware and use cases, ensuring optimal performance and adaptability for specific applications.
- 2023 - 2024
  SYRMIA an HTEC company
  Machine Learning Engineer
  ML Compiler Development (Client: Sima.ai) – Designing and optimizing machine learning compilers to enhance model performance and deployment efficiency on specialized hardware.

Honors & awards

- 2022. & 2024.
  Scholarship - IT makes S(ci)ENCE
  Lazar Krstic was awarded a scholarship from the *French Institute in Serbia* twice to visit the **iCube Laboratory** at the University of Strasbourg, French Republic. The first visit took place from 10.11.2022 to 29.12.2022, and the second visit was from 30.11.2024 to 22.12.2024.
- 2019.
  Data Science Hackathon
  Lazar Krstic is **the winner** of Data Science Hackathon on the topic **Credit Risk in Distribution Network** held by the Institute of Contemporary Sciences in cooperation with companies *IBM*, *Nelt* and *CubeTeam*.