

## Curriculum Vitae



### Lecturer PhD Alexandra Băicoianu

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### Degrees and diplomas:

- 2016 – Ph.D. in Computer Science from Babeş-Bolyai University in Cluj-Napoca, Faculty of Mathematics and Computer Science, România.
- 2008 – Master’s Degree in Algorithms and Software Products from Faculty of Mathematics and Computer Science, Transilvania University of Braşov, România.
- 2007 – Bachelor's degree in Mathematics and Computer Science, Faculty of Mathematics and Computer Science, Transilvania University of Braşov, România.

### Professional experience:

- 2017 – present Lecturer PhD teaching different courses like *Fundamental Algorithms, Standard to Modern C++*, *Cloud-Native Applications*, *C++/Python Programming for Engineers*, *Object-Oriented Programming in Java*, *Formal Languages and Compilers*, *Data Mining and Data Warehousing* within the Department of Mathematics and Computer Science, Transilvania University of Braşov, România.
- 2016 – present Siemens Industry Software, Department of Research and Technology engaged in research activities within various national and international projects.

### Managerial experience:

- Coordinator of the *Curious Minds AfterSchool* program – designed to provide support for those without prior computer science courses in high school or lacking sufficient information in the field. Weekly sessions are planned with focused exercises on fundamental algorithms.
- 2023 – present Coordinator of the *Applied Computer Science* study program from Faculty of Mathematics and Computer Science.

### Research projects

- Romanian Excellence Center on Artificial Intelligence on Earth Observation Data for Agriculture (AI4AGRI), 2022-2025, member
- Digital Technologies and Artificial Intelligence (AI) solutions (DITARTIS), 2022-2025, Partner Leader from Siemens Industry Software
- New modular Electrical architecture and digital platform to Optimise large battery systems on SHIPs (NEMOSHIP), 2023-2026, member.
- Intelligent Motion Control under Industry 4.E (IMOCO4E), 2021-2024, member
- Driver-In-the-Loop SIMulation for safety-critical testing scenarios of Electric Vehicles, 2020-2022, member
- Powerful Advanced N-level Digital Architecture for models of electrified vehicles and their components (PANDA), 2018-2022, member

- Dezvoltarea unei platforme HIL pentru testarea bateriilor unui vehicul urban electric (URBIVEL), 2017-2020, member
- High-Performance Computing of Personalized Cardio-Vascular Component Models (HEART), 2012-2016, PN-II-PT-PCCA-2011-3.2-1229, member

### **Representative scientific publications (selection)**

- A. Băicoianu, C. Gavrilă, C.M Păcurar, V. Păcurar - Fractal interpolation in the context of prediction accuracy optimization, Engineering Applications of Artificial Intelligence, 2024, 10.14569/IJACSA.2019.0100514, Q1.
- I.C. Plajer, A. Băicoianu, L. Majercsik, M. Ivanovici - Multisource Remote Sensing Data Visualization using Machine Learning, IEEE Transactions on Geoscience and Remote Sensing (TGRS), 2024, DOI: 10.1109/TGRS.2024.3372639, Q1.
- S. Catrina, M. Catrina, A. Baicoianu, I.C Plajer - Learning about Growing Neural Cellular Automata, 2024, IEEE Access, 10.1109/ACCESS.2024.3382541, Q2.
- Băicoianu, C.M Pacurar, M. Paun - A Concretization of an Approximation Method for Non-Affine Fractal Interpolation Functions, Mathematics, 2021, <https://doi.org/10.3390/math9070767>, Q1.
- R. Bocu, A. Băicoianu, A. Kerestely - An Extended Survey Concerning the Significance of Artificial Intelligence and Machine Learning Techniques for Bug Triage and Management, IEEE Access, 2023, DOI 10.1109/ACCESS.2023.3329732, Q2.
- A. Vântu, A. Vasilescu, A. Băicoianu - Medical Emergency Department Triage Data Processing using a Machine-Learning Solution, Heliyon, 2023, <https://doi.org/10.1016/j.heliyon.2023.e18402>, Q2.
- D.S. Caliman, V. David, A. Băicoianu - An Analysis of Improving Bug Fixing in Software Development, In Proceedings of the 18th International Conference on Software Technologies – ICISOFT, 2023, SciTePress, DOI: 10.5220/0012119500003538, Q2 (B).
- Kerestely, A. Băicoianu, R. Bocu - A research study on running machine learning algorithms on Big Data with Spark, The 14 International Conference on Knowledge Science Engineering and Management, 2021, [https://link.springer.com/chapter/10.1007/978-3-030-82136-4\\_25](https://link.springer.com/chapter/10.1007/978-3-030-82136-4_25), Q2 (B).
- A. Băicoianu - About innovation and optimization with Logical Analysis of Data and WEKA Proceedings of the 28th International Business Information Management Association Conference - Vision 2020: Innovation Management, Development Sustainability, and Competitive Economic Growth, ISBN: 978-0-9860419-8-3, WOS:000392785700416, Q2 (B).
- I. C. Plajer, A. Băicoianu, L. Majercsik, M. Ivanovici - NDVI Computation from Hyperspectral Images, 2023 13th Workshop on Hyperspectral Imaging and Signal Processing: Evolution in Remote Sensing (WHISPERS), DOI: 10.1109/WHISPERS61460.2023.10431225.
- I. C. Plajer, A. Băicoianu, L. Majercsik - AI-Based Visualization of Remotely-Sensed Spectral Images, International Symposium on Signals, Circuits and Systems (ISSCS), 2023, DOI 10.1109/ISSCS58449.2023.10190908.