

Grupul de cercetare “Machine Learning”

<https://github.com/lmsasu/MLReadingGroup>

Anul înființării / Founded: 2018

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Descriere / Description

Grupul de cercetare “Machine Learning” a fost fondat în 2018 și vizează cercetare fundamentală, prototipizare și implementare de modele de ML. Scopul grupului este promovarea legăturilor între cercetătorii și dezvoltatorii din domeniile Machine Learning în Universitatea Transilvania, în România și în afara țării.

Nucleul acestui grup este dat de Cercul de Machine Learning, demarat în Octombrie 2018, centrat pe prezentări de lucrări științifice, workshops, sau prezentări făcute de invitați din grupuri de cercetare externe.

Membrii grupului demonstrează activitate de cercetare în ML și domenii conexe, a se vedea selecția de articole de mai jos. Grupul este activ și în acțiunea de popularizare a științei [2]. Membrii cercetează și predau în domeniile grupului și își propun să publice lucrări în reviste și conferințe de prestigiu. Alte puncte de interes sunt câștigarea de proiecte în competiții naționale și internaționale, precum și colaborarea cu grupuri de cercetare din Universitate și din afara ei.

The “Machine Learning” research group, founded in 2018, aims at fundamental research, prototyping and implementation of ML models. The group fosters interactions between researchers and developers in the fields of Machine Learning at the University of Transilvania, in Romania as well as abroad.

The core of this group is the Reading Group on Machine Learning, started in October 2018, that is focused on presentations of scientific papers, workshops, or talks from guests of other research groups.

Group members are active in ML and connected areas, see list of selected papers below. The group is also active in popularizing science [2]. Members research, teach, and aim to publish papers in prestigious journals and conferences. Other points of interest are winning projects in national and international competitions, as well as collaborating with research groups inside and outside the university.

[1] Paler, Alexandru; Sasu, Lucian M.; Florea, Adrian; Andonie, Razvan, Machine Learning Optimization of Quantum Circuit Layouts, eprint arXiv:2007.14608, Iulie 2020, <https://arxiv.org/abs/2007.14608>

[2] Alexandru Paler si Lucian M. Sasu at World Quantum Day 2021 România, <http://ro.itim-cj.ro/blog/2021/04/14/world-quantum-day-2021-romania/>, <https://worldquantumday.org/events/>

Articole publicate (selecție) / Selected papers

- [3] H. Gâlmeanu, R. Andonie, "Weighted Incremental-Decremental Support Vector Machines for concept drift with shifting window", *Neural Networks*, Volume 152, 528-541, 2022
- [4] A. Baicoianu, A. Mathe, "Diagnose Bearing Failures With Machine Learning Models", 2021 International Conference on INnovations in Intelligent SysTems and Applications (INISTA), 2021, pp. 1-6, doi: 10.1109/INISTA52262.2021.9548506.
- [5] D. Marinescu, A Baicoianu, S. Dimitriu, "A plagiarism detection system in computer source code", *Int J Comput Sci Res Appl* 3 (1), 22-30, 2013
- [6] A. Stan, B. Lőrincz, M. Nuțu, M. Giurgiu, "The MARA corpus: Expressivity in end-to-end TTS systems using synthesised speech data", 2021 International Conference on Speech Technology and Human-Computer Dialogue (SpeD), 2021, pp. 85-90, doi: 10.1109/SpeD53181.2021.9587438.
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- [8] H. Galmeanu, R. Andonie, "A multi-class incremental and decremental SVM approach using adaptive directed acyclic graphs", 2009 International Conference on Adaptive and Intelligent Systems, 114-119, 2009
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- [13] S. Nechifor, B. Târnaucă, L. Sasu, D. Puiu, A. Petrescu, J. Teutsch, W. Waterfeld, F. Moldoveanu, "Autonomic monitoring approach based on CEP and ML for logistic of sensitive goods," *IEEE 18th International Conference on Intelligent Engineering Systems INES 2014*, 2014, pp. 67-72, doi: 10.1109/INES.2014.6909343.
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- [16] L.M. Sasu, R. Andonie, "Bayesian ARTMAP for regression", *Neural Networks*, Volume 46, 2013, Pages 23-31, ISSN 0893-6080
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- [20] A.T. Ardelean, L.M. Sasu, "Pose Manipulation with Identity Preservation", *International Journal of Computers Communications & Control* , v. 15, n. 2, Mar. 2020, ISSN 1841-9844.
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Contact

Pentru mai multe informații despre domeniile noastre de expertiză sau dacă este necesar să discutați despre posibile oportunități de cercetare, vă rugăm să ne contactați.

For more information about our areas of expertise or if you need to discuss possible research opportunities, please contact us.