CURRICULUM VITAE

MĂDĂLINA RĂSCHIP

Universitatea "Alexandru Ioan Cuza" din Iaşi, Facultatea de Informatică
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Studii

- 2014-2015 Cercetător post-doctoral, bursă SCIEX, University of Neuchatel, Switzerland
  Proiect: *HAL-DMCSP - Hybrid algorithms for joint data mining and constraint satisfaction problems: a case study on wireless sensor networks*
  Mentor: Prof. Dr. Kilian Stoffel

- 2005-2011 Doctorat în Informatică, Facultatea de Informatică, Universitatea "Alexandru Ioan Cuza" din Iaşi, România
  Teză doctorat: *Hybrid Metaheuristics for Solving Constraint Satisfaction Problems*
  Coordonator: Prof. Dr. Henri Luchian

- 2003-2005 Master în Optimizare Computațională, Facultatea de Informatică, Universitatea "Alexandru Ioan Cuza" din Iaşi, România

- 1999-2003 Licenţă in Informatică, Universitatea "Alexandru Ioan Cuza" din Iaşi, România

Domenii de cercetare
Inteligenţă artificială, Optimizare, Calcul evolutiv, Data mining
Membru al grupului *Evolutionary Computation in Optimization and Data Mining*, şi al grupului *Data Engineering for Constraints Optimization group*, UAIC

Granturi de cercetare
Director al *Hybrid Approaches for Solving Constraint Satisfaction Problems,* grant tip Tineri doctoranzi TD - 459, contract nr. 86GR, 2006-2008

Membru în:

- *RaaS-IS Research as a Service – Iasi,* POC – SMIS: 124759, 2022
- *FOReGASt: Integrated System of Analysis and Consumption Forecast for Natural Gas Distributors, PN-III-P2, 2017*
- *New Natural Computing Models in the Study of Complexity and for Solving Complex Problems*, Program 4 – Parteneriate în domenii prioritare - 2120, 2008-2010
- *GRAI: Academic Grid for Complex Applications*, Research Excellence Program, CEEX–M1-1801, 2006-2008
- *AMASS: Associative Memory Arrays for Semantic Search,* FP6, contract nr. 018283, 2005-2007

- *Approaches that mimic nature for the Graph Coloring Problem,* code 592, contract no. 33373, 2004-2006

Editor
Journal of Multiple-Valued Logic and Soft Computing, since 2023

Comitet de program
International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC), 2012-2019, 2022 – 2025
The Workshop on Natural Computing and Applications (NCA), SYNASC, 2011 – 2023
International Conference on Machine learning and applications (ICMLA) 2024-2025
KES 2025
International Conference on Advanced Data Mining and Applications (ADMA) 2022
FedCSIS 2021
The EVOLVE 2015 International Conference – A Bridge between Probability, Set Oriented Numerics, and Evolutionary Computing, 2015

Session chair: DATA 2025

Recenzor
Pattern Analysis and Applications, Springer (2022); *Scientific Annals of Computer Science* (2020); *Soft Computing*, Springer (2018); *Journal of Intelligent and Robotic Systems*, Springer (2015-2016); *Engineering Applications of Artificial Intelligence Journal*, Springer (2010)
International Conference on Mining Intelligence and Knowledge Exploration (MIKE 2018); *FedCSIS Conference on Computer Science and Intelligence Systems* 2019; *37th ACM/SIGAPP Symposium On Applied Computing* 2022-2023, CLEF 2022, InnoComp 2025

Mobilităţi Erasmus+
University of Massachusetts, Boston, USA (2017), *Ben-Gurion University of the Negev*, Israel (2016)

Instruire
- *Applied Statistics For Computer Scientists*, Dr. Bernadetta Tarigan, Doctoral Program in Computer Science, Conference Universitaire de Suisse Occidentale, Berne, May 2015
- *DBTA Workshop on Stream Processing*, Special Interest Group on Information Systems, Swiss Informatics Society, Berne, December 2014
- *Statistical Genomics for Medical Research*, Prof. P. Broet, Prof. H. Perdry, Prof. C. Dalmasso, ISCB Romanian group, Iasi, September 2012
- *Statistical Methods for Clinical Trials*, Prof. KyungMann Kim, ISCB Romanian group, Iasi, June 2012
- *Re-sampling methods (with R)*, Prof. Jeno Reiczigel, ISCB Romanian group, Iasi, October 2010
- *Doctoral Intensive Summer School on Evolutionary Computing in Optimisation and Data Mining*, Iasi, June 2006-2012
- *1st International Summer School on Constraint Programming*, organizers scholarship, Acquafredda di Maratea, September 2005
- University of Hamburg, Socrates scholarship, Germany, April-July 2003

Participare conferinţe
- *International Conference on Data Science, Technology and Applications (DATA), Bilbao, Spain, 2025*
- *IEEE Congress on Evolutionary Computation (CEC), Padua, Italy, 2022*
- *International Conference on Tools with Artificial Intelligence (ICTAI), Volos 2018*

- *Genetic and Evolutionary Computation Conference (GECCO)* Portland 2010, Madrid 2015
- *IEEE Congress on Evolutionary Computation (CEC)* Sendai 2015, Singapore 2007, Edinburgh 2005
- *EVOLVE - A Bridge between Probability, Set Oriented Numerics, and Evolutionary Computation*, Iasi, 2015
- *Learning and Intelligent Optimization (LION)*, Rome, 2011
- *EvoStar: European Conference on Evolutionary Computation in Combinatorial Optimisation (EvoCOP)*, Istanbul, 2010
- *ESSEC Romanian Seminar on Operational Research*, Bucuresti, 2009
- *European Conference on Artificial Intelligence (ECAI)*, Patras, 2008
- *International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC)*, Timisoara, 2006
- *International Workshop on Hybrid Metaheuristics (HM)*, Gran Canaria, 2006

Experienţa profesională
Poziţia curentă: Conferenţiar universitar, Facultatea de Informatică, Universitatea “Alexandru Ioan Cuza” din Iaşi, România
Cursuri:

Inteligenţă artificială (licenţă, din 2019)
Structuri de date (licentă, din 2011)
Experimental Analysys of Algorithms (master, din 2016)
Deep learning with applications in natural language processing (master, din 2021)

Data Scientist, SenticLab, 2017 - 2023

Limbaje de programare
python, R, Java, C++

Limbi străine
Engleză (nivel avansat), franceză (nivel începător)

Publicaţii

D. Dodun-Des-Perrieres, M. Raschip. Unified Mental Health Disorder Detection on Social Media, IFIP International Conference on Artificial Intelligence Applications and Innovations, 448-463, Springer Nature Switzerland, 2025

M. Nechita, M. Raschip. A Comparative Study of ML Approaches for Detecting AI-Generated Essays, 14th International Conference on Data Science, Technology and Applications, vol. 1, 144-155, 2025

C. Mariciuc, M. Raschip. Hybrid PSO-based rule classifier for disease detection, 16th International Conference on Agents and Artificial Intelligence (ICAART), 2024

I. Sitaru, M. Raschip. Algorithm Selection for Combinatorial Packing Problems, *2022 IEEE Congress on Evolutionary Computation (CEC)*, Padua, Italy, 2022, pp. 1-8

N. Buliga, M. Raschip. Zorros at CheckThat! 2022: Ensemble Model for Identifying Relevant Claims in Tweets, *CLEF 2022: Conference and Labs of the Evaluation Forum*, September 5–8, 2022, Bologna, Italy

V. Luncasu, M. Raschip. A graph-based approach for the DNA Word Design problem. *IEEE/ACM Transaction Computational Biology Bioinformatics*, 18(6): 2747-2752, 2021

C. Mariciuc, M. Răschip. The Application of Sequential Pattern Mining Techniques on MIMIC-IV, *IDDM-2021: 4th International Conference on Informatics & Data-Driven Medicine*, 2021

V.-I. Lupoaie, I.-A. Chili, M. Raschip, M.E. Breaban. An Evolutionary Approach for Solving Multi-Objective WCSPs Using Mini-Bucket Elimination Heuristics, *2021 IEEE Congress on Evolutionary Computation (CEC)*, 408-415, 2021

C. Frasinaru , M. Raschip. An Improved Subsumption Testing Algorithm for the Optimal-Size Sorting Network Problem. *International Conference on the Integration of Constraint Programming, Artificial Intelligence, and Operations Research (CPAIOR)*, 2019

C. Frăsinaru, M. Răschip. Greedy Best-First Search for the Optimal-Size Sorting Network Problem. *Procedia Computer Science*, vol. 159, pages 447-454, 2019

V.-I. Lupoaie, I.-A. Chili, M.E. Breaban, M. Raschip. SOM-Guided Evolutionary Search for Solving MinMax Multiple-TSP, *2019 IEEE Congress on Evolutionary Computation (CEC)*, 73-80, 2019

M. Raschip, C. Croitoru, C. Frasinaru. New Evolutionary Approaches for SAT Solving. In *Proc. of IEEE 30th International Conference on Tools with Artificial Intelligence (ICTAI)*, 522-526, 2018

R. Necula, M. Raschip, M. Breaban. Balancing the Subtours for Multiple TSP Approached with ACS: Clustering-Based Approaches Vs. MinMax Formulation. In: Tantar A., Tantar E., Emmerich M., Legrand P., Alboaie L., Luchian H. (eds) *EVOLVE - A Bridge between Probability, Set Oriented Numerics, and Evolutionary Computation VI. Advances in Intelligent Systems and Computing*, vol 674, Springer, 2018

I. Pistol, D. Trandabat, M. Raschip. Medi-Test: Generating Tests from Medical Reference Texts. *Data*, 3(4), 70, 2018

R. Necula, M. Breaban, M. Raschip: Tackling Dynamic Vehicle Routing Problem with Time Windows by means of Ant Colony System, In *Proc. Of the IEEE Con Congress on Evolutionary Computation, CEC 2017*

M. Raschip, C. Croitoru, K. Stoffel. Guiding Evolutionary Search with Association Rules for Solving Weighted CSPs . *Genetic and Evolutionary Computation Conference, GECCO '15*, 481-488, 2015

M. Raschip, C. Croitoru, K. Stoffel. Using association rules to guide evolutionary search in solving constraint satisfaction . In *Proc. of the IEEE Congress on Evolutionary Computation, CEC 2015*, 744-750, 2015

R. Necula, M. Breaban, M. Raschip: Tackling the Bi-criteria Facet of Multiple Traveling Salesman Problem with Ant Colony Systems. *27th IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2015*, 873-880, 2015

R. Necula, M. Breaban, M. Raschip. Performance Evaluation of Ant Colony Systems for the Single-Depot Multiple Traveling Salesman Problem. *Hybrid Artificial Intelligent Systems, HAIS 2015*, volume 9121 in LNCS, pages 257-268, 2015

M. Raschip, C. Croitoru. A Genetic Algorithm hybridized with the Discrete Lagrangian Method for trap escaping. *Learning and Intelligent Optimization LION5*, volume 6683 in LNCS, pages 351-363, 2011

M. Raschip, C. Croitoru. A New Primal-Dual Genetic Algorithm: Case Study for the Winner Determination Problem. *Evolutionary Computation in Combinatorial Optimization EvoCOP10*, volume 6022 in LNCS, pages 252-263, Springer, 2010

M. Raschip, H. Luchian. Using messy genetic algorithms for solving the winner determination problem. *Genetic and Evolutionary Computation Conference, GECCO'10, Evolutionary computation techniques for constraint handling workshop*, pages 1825-1832, 2010

M. Ionita, M. Breaban, C. Croitoru. Evolutionary Computation in Constraint Satisfaction, book chapter in *New Achievements in Evolutionary Computation*, editor Peter Korosec, INTECH Vienna, ISBN 978-953-307-053-7, 2010

M. Breaban, M. Ionita, C. Croitoru. A new PSO approach to constraint satisfaction. In *Proc. of the IEEE Congress on Evolutionary Computation, CEC 2007*, pages 1948-1954, 2007

M. Ionita, C. Croitoru, M. Breaban. Incorporating inference into evolutionary algorithms for Max-CSP. In *3rd International Workshop on Hybrid Metaheuristics*, volume 4030 in LNCS, pages 139-149, Springer-Verlag, 2006

M. Ionita, M. Breaban, C. Croitoru. A new scheme of using inference inside evolutionary computation techniques to solve CSPs. In *Proc. of 8th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, Natural Computing and Applications Workshop*, pages 323-329, IEEE press, 2006

M Ionita, H. Luchian: Two Problem Independent Methods for Generating Initial Solutions. In *Proc. of the 2005 IEEE Congress on Evolutionary Computation*, vol. 2, pages 1442-1447, 2005

Data: 28.08.2025