Laura Cornei

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© Faculty of Computer Science, "A.I. Cuza" University, General Berthelot Str. 16, 700483, Iaşi, Romania

Education

Ph.D. - Faculty of Computer Science, "Alexandru Ioan Cuza" University, Iași

2023-present

o Thesis: Hybrid methods based on Evolutionary Algorithms and ML techniques for solving scheduling problems

Master of Science - Faculty of Computer Science, "Alexandru Ioan Cuza" University, Iași

2021-2023

Advanced Studies in Computer Science Research Master.

- o GPA: 10. Research areas: Machine Learning, Nature Inspired Methods, NLP, Big Data Analytics, Semantic Web
- o Master's Thesis: Unsupervised text feature selection using NSGA II with Hill Climbing local search. Grade: 10.

Bachelor of Science - Faculty of Computer Science, "Alexandru Ioan Cuza" University, Iași

2018-2021

- o Valedictorian. GPA: 9.98.
- o BSc Thesis: An ontology and neural networks based platform for improving impact policy assessment. Grade: 10.

"Grigore Moisil" Computer Science high school, Iași

2015-2018

o Valedictorian

Experience

Teaching Assistant - Faculty of Computer Science, "Alexandru Ioan Cuza" University

Responsibilities: coordinating class activity, creating lab resources, proposing and evaluating homework and projects

Data Mining (2 groups, 1st year MSc)

Feb 2024 - June 2024

DBMS Practice (5 groups, 2nd year BSc)

Feb 2024 - June 2024

Teaching Collaborator - Faculty of Computer Science, "Alexandru Ioan Cuza" University

Responsibilities: coordinating class activity, creating lab resources, proposing and evaluating homework and projects

Artificial Intelligence (5 groups, 3^{rd} year BSc), Databases (3 groups, 2^{nd} year BSc)

Oct 2023 - Feb 2024

Algorithm Design (1st year BSc) - 3 groups

Feb 2023 - June 2023

Artificial Intelligence (3rd year BSc) - 2 groups

Oct 2022 - Feb 2023

Artificial Intelligence (3rd year BSc) - 2 groups

Oct 2021 - Feb 2022

Private Sky internship - Faculty of Computer Science, "Alexandru Ioan Cuza" University Research internship focused on Semantic Web

summer 2020

Mentorship program – Amazon, Iași

summer 2018

Mentorship focused on algorithms and data structures

Awards

International

ICPC South-East European Regional Contest: 11th place (2019-2020), 36th place (2018-2019)

National

Catalysts Coding Contest: 3rd place (2019-2020), 5th place (2018-2019)

RCPC (Romanian Collegiate Programming Contest): 12th place (2019-2020), 18th place (2018-2019)

Sapientia ECN Programming and Mathematics Contest: 1st place among high school teams (2017-2018)

InfoCup: 3rd place (2017-2018)

ITMarathon: 1st place (2017-2018), 2nd place (2016-2017)

Research interests

Machine Learning (with focus on Deep Learning), Evolutionary Algorithms, NLP, Semantic Web, Data Mining

Skills

- o Technologies: ML & NLP (Hugging Face, TensorFlow, Scikit-Learn, Gensim, SpaCy, NLTK), Cloud Computing (Google & Microsoft Azure Cloud), Big Data Analytics (Spark, Hadoop), Semantic Web (Stardog, Protege).
- o Programming languages: Python, Java, C/C++, Scala, Prolog, Clips
- o Languages: Romanian (native), English (C1-C2), French (B2)
- o Psycho-pedagogical module 1

Activities and affiliations

- o Member of **ECODAM** (Evolutionary Computation and Data Mining) research group (2022-present). **ECODAM** summer school (volunteer 2023).
- o Member of Romanian Association of Computational Linguistics (2023 present).
- o Participant at:
 - ✓ Winter School "Discovering the unknown: Al in healthcare" (University of Pavia, Italy December 2023)
 - ✓ Cornell, Maryland, Max Planck Pre-doctoral Research School (Max Plank research institute, Saarbrücken, Germany August 2023)
- o **Problem setter and part of contest committees in several algorithmic contests**: (IIOT) International Informatics Olympiad in Teams, National contest "ProSoft@NT", National contest "Urmașii lui Moisil", OMI local phase of Olympiad in Informatics, Infogim. (2019-2020)

Publications

- o Laura Cornei, Doru Cornei, Cristian Foșalău An Ontology-Driven Solution for Capturing Spatial and Temporal Dynamics in Smart Agriculture, 18th International Conference on Research Challenges in Information Science (RCIS), Portugal, Guimarães, 14-17 May, 2024
- o Laura Cornei, Eugen Croitoru, Henri Luchian **Unsupervised text feature selection using NSGA II with Hill Climbing local search**, 27th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (**KES**), G3 track, Greece, Athens, 6-8 September, 2023
- o Sergiu Amihăesei, Laura Cornei, George Stoica Appeal for attention at SemEval-2023 Task 3: Data augmentation and extension strategies for detection of online news persuasion techniques, *Proceedings of the 17th International Workshop on Semantic Evaluation (SemEval)*, Canada, Toronto, 13-14 July, 2023
- o Laura Cornei, Diana Trandabăț **DBSpark: A system for natural language to SPARQL translation**, 17th International Conference on Research Challenges in Information Science (*RCIS*), Greece, Corfu, 23-26 May 2023
- o Laura Cornei, Lenuța Alboaie **An ontology and neural networks based platform for improving impact policy assessment**, 26th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (**KES**), Italy, Verona, 7-9 September, 2022