

# Laura Cornei

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 LauraCornei  
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 Laura\_Cornei  
 personal site

## Education

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**Faculty of Computer Science (Research Master)** 2021-2023

Alexandru Ioan Cuza University, Iași

Advanced Studies in Computer Science Master. My current research interests include Artificial Intelligence with focus on Machine Learning and NLP, Nature Inspired Methods, Big Data Analytics and Data Mining.

**Faculty of Computer Science (Bachelor of Science)** 2018-2021

Alexandru Ioan Cuza University, Iași

- o Valedictorian. GPA: 9.98.
- o Bachelor Thesis: "An ontology and neural networks based platform for improving impact policy assessment". Thesis grade: 10.
- o Admitted to this faculty at the end of 11<sup>th</sup> grade by passing the pre-entrance exam.

**Grigore Moisil** 2015-2018

Computer Science high school, Iași

- o Valedictorian

## Experience

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### Teaching Collaborator

Faculty of Computer Science – coordinating class activity, providing explanations & creating additional resources for the labs, proposing projects, evaluating homework and projects.

Algorithm Design class (1st year, BSc) – 3 groups	Feb 2023 - present
Artificial Intelligence class (3rd year, BSc) – 2 groups	Oct 2022 - Feb 2023
Artificial Intelligence class (3rd year, BSc) – 2 groups	Oct 2021 - Feb 2022

**Private Sky internship** summer 2020

Faculty of Computer Science – research internship (Semantic Web)

**Mentorship program** summer 2018

Amazon, Iași – mentorship focused on algorithms and data structures

## Awards

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### International

ICPC South-East European Regional Contest: 11 <sup>th</sup> place	2019-2020
ICPC South-East European Regional Contest: 36 <sup>th</sup> place	2018-2019

### National

Catalysts Coding Contest: 3 <sup>rd</sup> place	2019-2020
RCPC (Romanian Collegiate Programming Contest): 12 <sup>th</sup> place	2019-2020
Catalysts Coding Contest: 5 <sup>th</sup> place	2018-2019
RCPC (Romanian Collegiate Programming Contest): 18 <sup>th</sup> place	2018-2019
Sapientia ECN Programming and Mathematics Contest: 1 <sup>st</sup> place among high school teams	2017-2018
InfoCup: 3 <sup>rd</sup> place	2017-2018

## Regional

ITMarathon: 1 <sup>st</sup> place	2017-2018
Computer Science County Olympiad: 3 <sup>rd</sup> prize	2017-2018
ITMarathon: 2 <sup>nd</sup> place	2016-2017
Computer Science County Olympiad: 3 <sup>rd</sup> prize	2016-2017
English County Olympiad: 1 <sup>st</sup> place	2015

## Other achievements

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- o Selected to attend the *Cornell, Maryland, Max Planck Pre-doctoral Research School* (August 2023, Saarbrücken, Germany)
- o Problem setter and part of contest committees in several algorithmic contests: (IIOT) International Informatics Olympiad in Teams, National contest "ProSoft@NT", National contest "Urmaşii lui Moisiil", OMI – local phase of Olympiad in Informatics, Infogim.
- o Amazon Learn&Earn prize for the second highest score - Programming Engineering subject (2020)
- o Completed psycho-pedagogical module 1

## Skills

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

## Research activity

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### Publications

- 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 Amihaesei, 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 Trandabăţ - **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, Lenuţa Alboai - **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

## Some projects

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- o Built a technology transfer social network with the purpose of connecting researchers and companies, using APIs and Services from Google Cloud and Azure to include functionalities such as search by common interests and proximity and an instant messaging service | **Cloud Computing**
- o Used Deep Q-Learning to solve the *Waterworld* game | **Deep Learning**
- o Created a Prolog and definite clause grammar-based system able "to learn" the English grammar, update its vocabulary with new words and check if given sentences are parsable | **Rule based programming**
- o Contributed to <https://github.com/eugennc/LearningRockets> project by implementing 3D rotations using quaternions | **Physics and Graphics**
- o Developed a Semantic Web application offering smart browsing, filtering and recommendations regarding non-alcoholic beverages | **Semantic Web**