



Ionel Eduard Stan

WORK EXPERIENCE

[1 Mar 2023 – Current]

Postdoctoral researcher

Liberà Università di Bozen-Bolzano

City: Bozen-Bolzano | **Country:** Italy

Contributed to Research Topic 4 (Artificial Intelligence and Data Science) of Spoke 3 (Green and digital transition for advanced manufacturing technologies) of the Piano Nazionale di Ripresa e Resilienza (PNRR) Interconnected Nord-Est Innovation Ecosystem (iNEST) project.

[1 Oct 2019 – 31 Jan 2023]

Graduate teaching assistant

Università degli Studi di Ferrara

City: Ferrara | **Country:** Italy

- Accelerated students' success rate for Algorithms and Data Structures (620 students; 155 on average per year), Databases and Laboratory (255

students; 85 on average per year), and Probability Calculus and Statistics (130 students)

- Coordinated more than 5 theses with keen students receiving excellent feedback

[1 Apr 2012 – 30 Jun 2014]

Inside technical sales representative

Dek srl

City: Bologna | **Country:** Italy

EDUCATION AND TRAINING

[1 Nov 2019 – 27 Feb 2023]

Ph.D. in Mathematics

Università degli Studi di Parma

City: Parma | **Country:** Italy | | **Final grade:** Excellent cum Laude | **Thesis:** Foundations of Modal Symbolic Learning

[1 Oct 2017 – 18 Oct 2019]

M.Sc. in Computer Science

Università degli Studi di Udine

City: Udine | **Country:** Italy | | **Final grade:** 110/110 cum Laude | **Thesis:** Multiple Formulas and Multiple Models Finite Interval-based Model Checking

[1 Oct 2014 – 13 Jul 2017]

B.Sc. in Computer Science

Università degli Studi di Ferrara

City: Ferrara | **Country:** Italy | | **Final grade:** 110/110 cum Laude | **Thesis:** Implementation of a Tableau-based Satisfiability Checker for the Logic HS3

LANGUAGE SKILLS

Mother tongue(s): Romanian

Other language(s):

Italian

LISTENING C2 READING C2 WRITING C2

SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2

English

LISTENING C1 READING C1 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Spanish

LISTENING B2 READING B2 WRITING B1

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

French

LISTENING A2 READING A2 WRITING A2

SPOKEN PRODUCTION A2 SPOKEN INTERACTION A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

My Digital Skills

Python | Julia | R | Java | C/C++ | LaTeX | MATLAB | JavaScript | SQL

PUBLICATIONS

- [2023] **Statistical Rule Extraction for Gas Turbine Trip Prediction**
Reference: Journal of Engineering for Gas Turbines and Power vol. 145 nr. 5. Bechini et al.
- [2023] **Fuzzy Halpern and Shoham's interval temporal logics**
Reference: Fuzzy Sets and Systems vol. 456 pp. 107--124. Conradie et al.
- [2023] **The voice of COVID-19: Breath and cough recording classification with temporal decision trees and random forests**
Reference: Artificial Intelligence in Medicine vol. 137 p. 102486. Manzella et al.
- [2021] **Feature and Language Selection in Temporal Symbolic Regression for Interpretable Air Quality Modelling**
Reference: Algorithms vol. 14 nr. 3 p. 76. Lucena-Sánchez et al.
- [2019] **On coarser interval temporal logics**
Reference: Artificial Intelligence vol. 266 pp. 1--26. Muñoz-Velasco et al.
- [2023] **(Un)supervised Univariate Feature Extraction and Selection for Dimensional Data**
Reference: Proc. of the 2nd ITADATA. CEUR vol. 3606. Cavina et al.
- [2023] **A Sound and Complete Tableau System for Fuzzy Halpern and Shoham's Interval Temporal Logic**
Reference: Proc. of the 30th TIME. LIPIcs vol. 278 pp. 9:1--9:14. Conradie et al.
- [2023] **Evolutionary Explainable Rule Extraction from (Modal) Random Forests**
Reference: Proc. of the 26th ECAI. FAIA vol. 372 pp. 827--834. Ghiotti et al.
- [2023] **Efficient Modal Decision Trees**
Reference: Proc. of the 32nd AIXIA. LNCS vol. 14318 pp. 381--395. Manzella et al.
- [2022] **Decision Trees with a Modal Flavor**
Reference: Proc. of the 31st AIXIA. LNCS vol. 13796 pp. 47--59. Della Monica et al.
- [2022] **On Modal Logic Association Rule Mining**
Reference: Proc. of the 23rd ICTCS. CEUR vol. 3284 pp. 53--65. Stan et al.
- [2022] **Neural-Symbolic Temporal Decision Trees for Multivariate Time Series Classification**
Reference: Proc. of the 29th TIME. LIPIcs vol 247 pp. 13:1--13:15. Pagliarini et al.

- [2021] **Interval Temporal Random Forests with an Application to COVID-19 Diagnosis**
Reference: Proc. of the 28th TIME. LIPIcs vol. 206 pp. 7:1--7:18. Manzella et al.
- [2021] **Multi-Frame Modal Symbolic Learning**
Reference: Proc. of the 3rd OVERLAY. CEUR vol. 2987 pp. 37--41. Pagliarini et al.
- [2020] **Time Series Checking with Fuzzy Interval Temporal Logics**
Reference: Proc. of the 21st ICTCS. CEUR vol. 2756 pp. 250--262. Conradie et al.
- Symbolic Learning with Interval Temporal Logic: the Case of Regression**
Reference: Proc. of the 2nd OVERLAY. CEUR vol. 2785 pp. 5--9. Lucena-Sánchez et al.
- [2020] **A Note on Ultimately-Periodic Finite Interval Temporal Logic Model Checking**
Reference: Proc. of the 2nd OVERLAY. CEUR vol. 2785 pp. 11--15. Della Monica et al.
- [2020] **Rule Extraction via Dynamic Discretization with an Application to Air Quality Modelling**
Reference: Proc. of the 14th RULE+RR. CEUR vol. 2644 pp. 42--57. Kaminska et al.
- [2020] **Knowledge Extraction with Interval Temporal Logic Decision Trees**
Reference: Proc. of the 27th TIME. LIPIcs vol. 178 pp. 9:1--9:16. Sciavicco and Stan
- [2019] **Interval Temporal Logic Decision Tree Learning**
Reference: Proc. of the 16th JELIA. LNCS vol. 11468 pp. 778--793. Brunello et al.
- [2019] **Towards Interval Temporal Logic Rule-Based Classification**
Reference: Proc. of the 1st OVERLAY. CEUR vol. 2509 pp. 65--70. Lucena-Sánchez et al.
- [2019] **Towards a General Method for Logical Rule Extraction from Time Series**
Reference: Proc. of the 8th IWINAC. LNCS vol. 11487 pp. 3--12. Sciavicco et al.
- [2017] **Implementation of a Tableau-based Satisfiability Checker for HS3**
Reference: Proc. of the 18th CILC. CEUR vol. 1949 pp. 326--340. Muñoz-Velasco et al.

HONOURS AND AWARDS

- [2021] **Finalist Awarding institution:** Huawei University Challenge
- [2020] **Best M.Sc. Graduate Student in Computer Science Awarding institution:** Università degli Studi di Udine
Awarded with 1000€