



FRANCESCO SOVRANO

CURRICULUM VITAE



Nationality/ citizenship / Italy
Driving licence / B
ID/4274270 updated on 28/12/21

✉ cesco.sovrano@gmail.com
☎ +39 051 20 9 4872
🌐 www.unibo.it/sitoweb/francesco...

SOFT SKILL

Autonomy 10/10
Self confidence 10/10
Flexibility/Adaptability 10/10
Resistance to stress 10/10
Ability to plan and organize 10/10
Managing information 10/10
Precision/Attention to details 10/10
Learn continuously 10/10
Achievement of objectives 10/10
Entrepreneurial spirit and initiative 10/10
Communication 10/10
Problem Solving 10/10
Team work 10/10
Leadership 8/10


FOREIGN LANGUAGE SKILLS

MOTHER TONGUE(S): Italian



ENGLISH
EXCELLENT C1 C1 C1 C1 C1

DIGITAL COMPETENCES

Self-assessment grid 
Information processing **Proficient user**
Communication **Proficient user**
Content creation **Proficient user**
Safety **Proficient user**
Problem solving **Proficient user**

Career Goal

I would like to work on something that will:
(+) feed my creativity and my professional interests;
(+) allow me to do research;
(+) guarantee career advancement or good opportunities for re-employment;
(+) guarantee a good salary.



WORK EXPERIENCES

Teaching Tutor ALMA MATER STUDIORUM - UNIVERSITÀ DI BOLOGNA

Computer science, data processing and acquisition
BOLOGNA (BO)
03/2019 - TODAY

Main activities and responsibilities: Tutoring activity related to the teaching called WEB TECHNOLOGIES [cod. 41731] for the COMPUTER SCIENCE course.
Employed as: other - fixed-length contract | Company sector: Human Resources

University Research Assistant

ALMA MATER RESEARCH
INSTITUTE FOR HUMAN-
CENTERED ARTIFICIAL
Computer science, data processing and acquisition
BOLOGNA (BO)
12/2021 - 12/2021

Main activities and responsibilities: Project LEOS: series of reports and other artefacts on 'Drafting legislation in the era of AI and digitisation': PART I, Maturity of the market, Open-Source Frameworks and Libraries for AI, PART II, Case Study 1: Learning from examining corrigenda, Case Study 3: Derogations and Transitory Provisions.
Working as: employee collaborator | Company sector: R&D and patents

Higher Education Lecturer ALMA MATER STUDIORUM - UNIVERSITÀ DI BOLOGNA

Computer science, data processing and acquisition
BOLOGNA (BO)
09/2021 - 12/2021

Main activities and responsibilities: Teaching activity. 8 hours of lessons held as part of the course 'USABILITY & USER EXPERIENCE DESIGN', on explainable and explanatory artificial intelligence (XAI & YAI). ID-90720 (<https://www.unibo.it/en/teaching/course-unit-catalogue/course-unit/2021/444904>)
Working as: without contract | Company sector: Human Resources

Higher Education Lecturer CIRSFID - UNIVERSITÀ DI BOLOGNA

Computer science, data processing and acquisition
BOLOGNA (BO)
09/2021 - 11/2021

Main activities and responsibilities: Teaching activity. 10 hours of lessons held as part of the course 'Data Science for Lawyers', on data analysis, visualisation and how to lie with data. ID-96482 (<https://www.unibo.it/en/teaching/course-unit-catalogue/course-unit/2021/468900>)
Working as: without contract | Company sector: Human Resources

EXPECTATIONS AND FEATURES OF THE DESIRED JOB

INTENTION TO CONTINUE STUDIES: **Yes** /
Doctoral studies

ECONOMIC SECTOR: **1.** education, training, research and development / **2.** computer science, data processing and acquisition / **3.** public administrations (municipalities, armed forces ...)

CAREER FIELD: **1.** Engineering and design / **2.** Legal Office / **3.** R&D and patents

DESIRED JOB:
Artificial Intelligence; Legal Informatics; Education

PREFERRED DISTRICT TO WORK IN: **1.** PADOVA / **2.** BOLOGNA

AVAILABILITY FOR BUSINESS TRAVELS:
Yes, but not often

AVAILABILITY TO RELOCATE ABROAD:
Yes, even in non-European countries

University Research Assistant

ALMA MATER STUDIORUM - UNIVERSITÀ DI BOLOGNA

Education, training, research and development (BO)
07/2019 - 10/2021

University Research Assistant

ALMA MATER STUDIORUM - UNIVERSITÀ DI BOLOGNA

Computer science, data processing and acquisition (BO)
09/2019 - 09/2021

Higher Education Lecturer CIRSFD - UNIVERSITÀ DI BOLOGNA

Computer science, data processing and acquisition BOLOGNA (BO)
03/2021 - 05/2021

Higher Education Lecturer ALMA MATER STUDIORUM - UNIVERSITÀ DI BOLOGNA

Computer science, data processing and acquisition BOLOGNA (BO)
09/2020 - 12/2020

Consulente CINI - CONSORZIO INTERUNIVERSITARIO NAZIONALE PER L'INFORMAT

Computer science, data processing and acquisition ROMA (RM)
04/2020 - 04/2020

Teacher FONDAZIONE FLAMINIA

Computer science, data processing and acquisition RAVENNA (RA)
09/2019 - 09/2019

Teaching Tutor UNIVERSITÀ DI BOLOGNA

Computer science, data processing and acquisition BOLOGNA (BO)
09/2018 - 03/2019

Main activities and responsibilities: "MIREL: Mining and REasoning with Legal texts" - Grant Agreement Number 690974; research activities summarised in the following scientific publications:

- 1) Making Things Explainable vs Explaining: Requirements and Challenges under the GDPR; http://dx.doi.org/10.1007/978-3-030-89811-3_12
- 2) PrOnto Ontology Refinement Through Open Knowledge Extraction; <http://dx.doi.org/10.3233/FAIA190326>
Working as: without contract | Company sector: R&D and patents

Main activities and responsibilities: InterLex - Grant Agreement No.800839: Research activities within the InterLex project, funded by the European Union's Justice programme under Grant Agreement No.800839.

These research activities are summarised in the following scientific publications:

- 1) Sovrano, Francesco, Monica Palmirani, and Fabio Vitali. 'Legal Knowledge Extraction for Knowledge Graph Based Question-Answering.' Legal Knowledge and Information Systems. IOS Press, 2020. 143-153. <http://dx.doi.org/10.3233/FAIA200858>
- 2) Sovrano, Francesco, et al. 'A dataset for evaluating legal question answering on private international law.' Proceedings of the Eighteenth International Conference on Artificial Intelligence and Law. 2021. <http://dx.doi.org/10.1145/3462757.3466094>
Working as: without contract | Company sector: R&D and patents

Main activities and responsibilities: Teaching activity. 8 hours of lessons held as part of the course 'Sem. Data Science For Legal Analytic', on explainable and explanatory artificial intelligence (XAI & YAI). ID-94376 (<https://www.unibo.it/en/teaching/course-unit-catalogue/course-unit/2020/460829>)

Working as: without contract | Company sector: Human Resources

Main activities and responsibilities: Teaching activity. 8 hours of lessons held as part of the course 'USABILITY & USER EXPERIENCE DESIGN', on explainable and explanatory artificial intelligence (XAI & YAI). ID-90720 (<https://www.unibo.it/en/teaching/course-unit-catalogue/course-unit/2020/444904>)

Working as: without contract | Company sector: Human Resources

Main activities and responsibilities: Applicazioni in campo giuridico dell'Intelligenza Artificiale.

Acquired skills and achieved objectives: Il lavoro in questione prevedeva la stesura di un documento di buona qualità che potesse in qualche modo riassumere il rapporto odierno tra intelligenza artificiale (in breve IA) e legge.

Working as: employee collaborator | Company sector: R&D and patents

Main activities and responsibilities: Teaching assignment within the LEX 2019 Summer School

Working as: other, self employed | Company sector: Human Resources

Main activities and responsibilities: Tutoring activity related to the teaching called PROGRAMMING [cod. 00819] of the Academic Year 2018/2019 for the COMPUTER SCIENCE course
Employed as: other - fixed-length contract | Company sector: Human Resources



PH.D.

ACADEMIC STUDIES

Alma Mater Studiorum - Università di Bologna

2018 - 2023
ONGOING STUDIES



MASTER'S DEGREE
2016 - 2018
CERTIFIED TITLE



Faculty: Department of Computer Science and Engineering
Data science and computation
PhD cycle: 34

Dissertation/thesis title: YAI: Explanatory Artificial Intelligence |
Thesis supervisor: Fabio Vitali
Expected graduation date: 03/2023

Alma Mater Studiorum - Università di Bologna
Scuola di Scienze
Informatica

specific field of the degree course: curriculum a: tecniche del software

LM-18 - 2nd level degree in Computer Science

Dissertation/thesis title: Deep Reinforcement Learning and sub-problem decomposition using Hierarchical Architectures in partially observable environments | Dissertation/thesis subject: Machine Learning | Thesis supervisor: ASPERTI ANDREA | Dissertation/thesis keywords: Deep Reinforcement Learning; POMDP; Actor-Critic; Sentiment Analysis; Autonomous Driving

Age at graduation: 27 | Official duration: 2 years

Final degree mark: **110/110 cum laude**

Graduation date: 17/10/2018



FOREIGN LANGUAGE SKILLS

DIPLOMAS AND CERTIFICATES

English Idoneità linguistica, Università di Bologna, 16 Jan 2017 ,
Europass level B2



INFORMATION TECHNOLOGY SKILLS

OFFICE AUTOMATION

Office Suite: (Advanced) , Apache OpenOffice | **Spreadsheets:** (Advanced) | **Web Browser:** (Highly Specialised) | **Word Processors:** (Advanced)

APPLICATION SOFTWARE

CAD - Assisted Design: (Foundation)

COMPUTER PROGRAMMING

Programming languages: C (Highly Specialised) , C# (Highly Specialised) , C++ (Highly Specialised) , Erlang (Highly Specialised) , F# (Highly Specialised) , Java (Highly Specialised) , JavaScript (Highly Specialised) , Lua (Highly Specialised) , OCaml (Highly Specialised) , Octave (Highly Specialised) , Python (Highly Specialised) , SQL (Highly Specialised) , Scala (Highly Specialised) , Swift - Apple programming language (Highly Specialised) , Visual Basic - VB (Highly Specialised) | **Video game creation systems:** Unity (Advanced) | **Web Programming:** PHP (Highly Specialised)

SYSTEMS AND NETWORKS MANAGEMENT

Network architecture: (Highly Specialised) | **Operating systems:** (Highly Specialised) , Linux (Advanced)

DATA MANAGEMENT

DBMS: (Highly Specialised) | **Query languages:** SPARQL

GRAPHICS AND MULTIMEDIA

(Intermediate) | **Raster graphic editor:** paint.net



STUDIES AND EXPERIENCES ABROAD

UNITED STATES OF AMERICA
2021

European Union program (GHAIA H2020-MSCA-RISE-2017)

At: University of Pittsburgh

Place: **Pittsburgh (United States of America)** | Language: English |

Duration: 4 (months)

UNITED KINGDOM
2020

Other experience acknowledged by the course of study (Visiting Period)

At: University of Cambridge

Place: **Cambridge (United Kingdom)** | Language: English | Duration: 1 (months)
(2020/03) Invited for a research visit to the University of Cambridge (UK). Topic: improvement of the performance of reinforcement learning methods in the presence of explanations, in explanation-aware architectures.

UNITED STATES OF AMERICA
2019

European Union program (Progetto Europeo Marie Curie - MIREL)
At: Stanford
Place: **Palo Alto (CA) (United States of America)** | Language: English | Duration: 1 (months)
5716ROTO03 - European Project Marie Curie 'MIREL-MInig and REasoning with Legal texts '



PROFESSIONAL ACCOLADES AND AWARDS

PRIZE
29/05/2019

UN Challenge

The challenge is focused on the analysis and categorization of information contained in UN General Assembly (UNGA) resolutions.

I am part of team SANKOFA.

Grading in list: 1

uniteideas.spigit.com/unga-resolutions/Page/Home



EVENTS / EXHIBITIONS

WORKSHOP
2021

ReMeP 2021

Research Meets Practice - Legal Informatics Conference

Supervisor: Monica Palmirani

Character: Invited Speaker

www.remep.net

WORKSHOP
2020

The Akoma Ntoso Developers Workshop

Technical people, developers, companies, public administration ICT departments are invited to the Akoma Ntoso Developers Workshops for two days (14-15 Spet. 2020)

Supervisor: Monica Palmirani

Ravenna

Character: Speaker

summerschoollex.cirsfid.unibo.it/?page_id=96

WORKSHOP
2019

ReMeP 2019

Algorithmic Decision Making (ADM): We'll hear about a novel approach building on eXplainable Artificial Intelligence (XAI). Algorithms can be a huge benefit to the decision-making process whenever large amounts of data need to be taken into consideration. However, most of us feel a bit uncomfortable when we know that a decision was taken by AI, perhaps even without human intervention. Largely because we don't understand the mechanism.

Supervisor: Fabio Vitali

Vienna

Production: Università di Vienna

Character: Speaker

www.remep.net

WORKSHOP
2019

The Akoma Ntoso Developers Workshop

Technical people, developers, companies, public administration ICT departments are invited to the Akoma Ntoso Developers Workshops for two days

Supervisor: Monica Palmirani

Ravenna

Character: Speaker



CONFERENCES

08/12/2021

JURIX 2021 , Mykolas Romeris University (MRU) , Vilnius
34th International Conference on Legal Knowledge and Information System
Character: Speaker
jurix2021.mruni.eu

CONFERENCES

01/06/2021

ICAIL 2021 , University of São Paulo , Virtual
18th International Conference on Artificial Intelligence and Law
Character: Speaker - Short Paper
icail.lawgorithm.com.br

CONFERENCES

01/04/2021

IUI 2021 , Texas A&M University , Virtual
ACM IUI 2021 is the 26th annual meeting of the intelligent interfaces community and serves as a premier international forum for reporting outstanding research and development on intelligent user interfaces. ACM IUI is where the Human-Computer Interaction (HCI) community meets the Artificial Intelligence (AI) community.
Character: Speaker - Full Paper
iui.acm.org/2021/

CONFERENCES

11/12/2020

JURIX 2020 , Institute of Law and Technology (Faculty of Law, Masaryk University, Brno) , online
33rd International Conference on Legal Knowledge and Information Systems
Curatorship: Institute of Law and Technology (Faculty of Law, Masaryk University, Brno)
Character: Speaker - Full Paper
jurix2020.law.muni.cz

CONFERENCES

22/09/2020

ICEGOV 2020 , University of the Aegean , Atene
CEGOV 2020 marks the 13th edition of the International Conference on Theory and Practice of Electronic Governance. Jointly organised by the University of the Aegean, the Harokopio University of Athens and the United Nations University (UNU-EGOV), this year's conference has been shifted, for the first time, from a physical conference to a fully virtual conference due to the COVID-19 pandemic.
Character: Speaker
www.icegov.org

CONFERENCES

14/09/2020

EGOVIS 2020 , Online
International Conference on Electronic Government and the Information Systems Perspective
Character: Speaker
www.dexa.org/egovis2020

CONFERENCES

11/12/2019

JURIX 2019 , Universidad Politécnica de Madrid , Madrid
32nd International Conference on Legal Knowledge and Information Systems
Character: Speaker
jurix2019.oeg-upm.net

CONFERENCES

20/08/2019

IEEE Conference on Games 2019 , Queen Mary University of London , Londra
The Conference on Games (CoG) evolves from the traditional Computational Intelligence and Games (CIG) to bring together leading researchers and practitioners from academia and industry in the field of Games, to discuss recent advances and explore future directions.
Character: Speaker
ieee-cog.org/2019/

CONFERENCES

13/09/2018

LOD 2018 - The Fourth International Conference on Machine Learning, Optimization, and Data Science
A. Asperti, Daniele Cortesi, F. Sovrano. Crawling in Rogue's dungeons with (partitioned) A3C. Accepted for publication at the Fourth International Conference on Machine Learning, Optimization, and Data Science (LOD2018) - September 13-16, 2018 - Volterra, Tuscany, Italy



PUBLICATIONS

JOURNAL ARTICLES

2021

Francesco Sovrano; Alex Raymond; Amanda Prorok, Explanation-Aware Experience Replay in Rule-Dense Environments
Review: IEEE Robotics and Automation Letters
doi.org/10.1109/LRA.2021.3135927

CONFERENCE PROCEEDINGS

2021

Sovrano, Francesco; Sapienza, Salvatore; Palmirani, Monica; Vitali, Fabio, A Survey on Methods and Metrics for the Assessment of Explainability Under the Proposed AI Act
Collection: FRONTIERS IN ARTIFICIAL INTELLIGENCE AND APPLICATIONS
Organization: JURIX 2021: 4th International Conference on Legal Knowledge and Information Systems
dx.doi.org/10.3233/FAIA210342

CONFERENCE PROCEEDINGS

2021

Palmirani, Monica; Sovrano, Francesco; Liga, Davide; Sapienza, Salvatore; Vitali, Fabio, Hybrid AI Framework for Legal Analysis of the EU Legislation Corrigenda
Collection: FRONTIERS IN ARTIFICIAL INTELLIGENCE AND APPLICATIONS
Organization: JURIX 2021: 34th International Conference on Legal Knowledge and Information Systems
dx.doi.org/10.3233/FAIA210319

BOOK CHAPTER

2021

Francesco Sovrano, Fabio Vitali, Monica Palmirani, Making Things Explainable vs Explaining: Requirements and Challenges Under the GDPR
Book title: AI Approaches to the Complexity of Legal Systems XI-XII
Publisher: Víctor Rodríguez-Doncel, Monica Palmirani, Micha Araszkievicz, Pompeu Casanovas, Ugo Pagallo, Giovanni Sartor
dx.doi.org/10.1007/978-3-030-89811-3_12

CONFERENCE PROCEEDINGS

2021

F. Sovrano, M. Palmirani, B. Distefano, S. Sapienza, F. Vitali, A dataset for evaluating legal question answering on private international law
Collection: Proceedings of the Eighteenth International Conference on Artificial Intelligenc
Sovrano, Francesco; Palmirani, Monica; Distefano, Biagio; Sapienza, Salvatore; Vitali, Fabio, A dataset for evaluating legal question answering on private international law, in: Proceedings of the Eighteenth International Conference on Artificial Intelligence and Law, New York, Association for Computing Machinery, 2021, pp. 230 - 234 (atti di: International Conference on Artificial Intelligence and Law, São Paulo, Brazil, June 21 - 25, 2021) [Contribution to conference proceedings]
doi.org/10.1145/3462757.3466094

CONFERENCE PROCEEDINGS

2021

F. Sovrano, F. Vitali, From Philosophy to Interfaces: an Explanatory Method and a Tool Inspired by Achinstein's Theory of Explanation
Sovrano, Francesco; Vitali, Fabio, From Philosophy to Interfaces: an Explanatory Method and a Tool Inspired by Achinstein's Theory of Explanation, in: IUI '21: 26th International Conference on Intelligent User Interfaces, 2021, pp. 81 - 91 (atti di: IUI '21: 26th International Conference on Intelligent User Interfaces, Colledge Station TX USA, April, 2021) [Contribution to conference proceedings]
doi.org/10.1145/3397481.3450655

CONFERENCE PROCEEDINGS

2020

F. Sovrano, M. Palmirani, F. Vitali, Legal Knowledge Extraction for Knowledge Graph Based Question-Answering
Francesco Sovrano, Monica Palmirani, Fabio Vitali, Legal Knowledge Extraction for Knowledge Graph Based Question-Answering, in: Legal Knowledge and Information Systems JURIX 2020: The Thirty-third Annual Conference, Brno, Czech Republic, December 9-11, 2020, Amsterdam, IOS, 2020, 334, pp. 143 - 153

(atti di: Legal Knowledge and Information Systems (JURIX 2020), 33rd International Conference., Brno, Czech Republic, December 9-11, 2020) [Contribution to conference proceedings]
doi.org/10.3233/FAIA200858

CONFERENCE PROCEEDINGS
2020

F. Sovrano, F. Vitali, M. Palmirani, Modelling GDPR-Compliant Explanations for Trustworthy AI
Collection: International Conference on Electronic Government and the Information Systems Pe
Organization: International Conference on Electronic Government and the Information Systems Perspective
In this paper we propose our version of Explanatory Narratives (EN), based on user-centred concepts drawn from ISO 9241, as a model for user-centred explanations aligned with the GDPR and the AI-HLEG guidelines.
dx.doi.org/10.1007/978-3-030-58957-8_16

CONFERENCE PROCEEDINGS
2020

M. Palmirani, G. Bincoletto, V. Leone, S. Sapienza, F. Sovrano, Hybrid Refining Approach of PrOnto Ontology
Collection: International Conference on Electronic Government and the Information Systems Pe
Organization: International Conference on Electronic Government and the Information Systems Perspective
This paper presents a refinement of PrOnto ontology using a validation test based on legal experts' annotation of privacy policies combined with an Open Knowledge Extraction (OKE) algorithm.
dx.doi.org/10.1007/978-3-030-58957-8_1

CONFERENCE PROCEEDINGS
2020

F. Sovrano, M. Palmirani, F. Vitali, Deep learning based multi-label text classification of UNGA resolutions
Collection: ICEGOV 2020: Proceedings of the 13th International Conference on Theory and Prac
Organization: Università di Bologna
The main goal of this research is to produce a useful software for United Nations (UN), that could help to speed up the process of qualifying the UN documents following the Sustainable Development Goals (SDGs) in order to monitor the progresses at the world level to fight poverty, discrimination, climate changes.
doi.org/10.1145/3428502.3428604

JOURNAL ARTICLES
2020

A. Asperti; D. Cortesi; C. de Pieri; G. Pedrini; F. Sovrano, Crawling in Rogue's dungeons with deep reinforcement techniques
Review: IEEE Transactions on Games
Publisher: IEEE
dx.doi.org/10.1109/TG.2019.2899159

CONFERENCE PROCEEDINGS
2019

F. Sovrano, F. Vitali, M. Palmirani, The difference between Explainable and Explaining: requirements and challenges under the GDPR
Collection: XAILA 2019 EXplainable AI in Law 2019. Proceedings of the 2nd EXplainable AI in
Organization: XAILA 2019 EXplainable AI in Law 2019
In this paper we propose a new model of an explanatory process based on the idea of explanatory narratives, claiming that it is powerful enough to allow many possible types of explanations including causal, contrastive, justificatory and other types of non-causal explanations.
ceur-ws.org/Vol-2681/

CONFERENCE PROCEEDINGS
2019

M. Palmirani, G. Bincoletto, V. Leone, S. Sapienza, F. Sovrano, PrOnto Ontology Refinement Through Open Knowledge Extraction
Collection: Legal Knowledge and Information Systems. JURIX 2019. The Thirty-second Annual Co
Organization: JURIX 2019
This paper presents a refinement of PrOnto ontology using a validation test based on legal experts' annotation of privacy policies combined with an Open Knowledge Extraction algorithm. Three iterations were performed, and a final test using new privacy policies. The results are 75% of detection of concepts and

relationships in the policy texts and an increase of 29% in the accuracy using the new refined version of PrOnto enriched with SKOSXL lexicon terms and definitions.
dx.doi.org/10.3233/FAIA190326

CONFERENCE PROCEEDINGS

2019

Francesco Sovrano, Combining Experience Replay with Exploration by Random Network Distillation
Collection: Computational Intelligence and Games, CIG, IEEE Symposium on, 2019
Organization: Department of Computer Science and Engineering (DISI), University of Bologna
doi.org/10.1109/CIG.2019.8848046

CONFERENCE PROCEEDINGS

2019

A. Asperti; D. Cortesi; F. Sovrano, Crawling in Rogue's Dungeons with (Partitioned) A3C
Collection: LOD 2018. Lecture Notes in Computer Science, vol 11331.
Organization: Machine Learning, Optimization, and Data Science
Rogue is a famous dungeon-crawling video-game of the 80ies, the ancestor of its gender. Rogue-like games are known for the necessity to explore partially observable and always different randomly-generated labyrinths, preventing any form of level replay. In this article we show how, exploiting a version of A3C partitioned on different situations, the agent is able to reach the stairs and descend to the next level in 98% of cases.
dx.doi.org/10.1007/978-3-030-13709-0_22

DEGREE THESIS

2018

Francesco Sovrano, Deep Reinforcement Learning and sub-problem decomposition using Hierarchical Architectures in partially observable envs
Institution: Università di Bologna
The high-level goal of our thesis is to investigate the advantages that a Hierarchical Reinforcement Learning (HRL) approach may have over a simple RL approach. Thus, we study problems of interest (rarely tackled by means of RL) like Sentiment Analysis, Rogue and Car Controller, showing how the ability of RL algorithms to solve them in a partially observable environment is affected by using (or not) generic hierarchical architectures based on RL algorithms of the Actor-Critic family.
amslaurea.unibo.it/16718/

OTHER

2017

Francesco Sovrano, Rise of Kiruru
A mobile video-game for Android and iOS. Rise of Kiruru is the best innovative mix between multiplayer online Arena games and Card games. Create your deck, choose your hero and select an arena.. will you be the best of all?
play.google.com/store/apps/details?id=com.kiruru...

JOURNAL ARTICLES

2017

A. Asperti, C. De Pieri, M. Maldini, G. Pedrini, F. Sovrano, A Modular Deep-learning Environment for Rogue
Review: WSEAS Transactions on Systems and Control
www.wseas.org/multimedia/journals/control/2017/...

DEGREE THESIS

2016

Francesco Sovrano, A proposito di Crittografia a chiave asimmetrica e numeri primi: tecniche note e proposta di un nuovo test di primalità
Institution: Università di Bologna
amslaurea.unibo.it/10897/



TEACHING ACTIVITIES

LESSONS/LECTURES

2021

Università di Bologna, Bologna
Data Science for Lawyers: Data Analysis and Visualisation
Teaching activity. 10 hours of lessons held as part of the course 'Data Science for Lawyers', on data analysis, visualisation and how to lie with data. ID-96482
(<https://www.unibo.it/en/teaching/course-unit-catalogue/course-unit/2021/468900>)
Main Professor: Monica Palmirani

Character: Professor

LESSONS/LECTURES
2021

Università di Bologna , Bologna
USABILITY & USER EXPERIENCE DESIGN: XAI
Teaching activity. 8 hours of lessons held as part of the course 'USABILITY & USER EXPERIENCE DESIGN', on explainable and explanatory artificial intelligence (XAI & YAI). ID-90720 (<https://www.unibo.it/en/teaching/course-unit-catalogue/course-unit/2021/444904>)
Main Professor: Fabio Vitali
Character: Professor

LESSONS/LECTURES
2020

Università di Bologna - Informatica Magistrale , Bologna
Explainability vs Explaining
Course: 90720 - USABILITY & USER EXPERIENCE DESIGN.
Degree: Master Degree in Computer Science
Contents:
1) The GDPR and the Right to Explanation.
2) The distinction between One-Size-Fits-All and User-Centred Explanations in the guidelines of the High-Level Expert Group on AI.
3) What is an Explanation in Philosophy.
4) What is Explainability.
Main Professor: Fabio Vitali
Character: Professor

LESSONS/LECTURES
2020

Università di Bologna - Informatica Magistrale , Bologna
How to Design User-Centred YAI
Course: 90720 - USABILITY & USER EXPERIENCE DESIGN.
Degree: Master Degree in Computer Science
Contents:
1) The limitations of modern XAI.
2) How to define a user-centred explanatory process.
3) What are the properties and the heuristics for a user-centred explanatory process.
4) How to evaluate an explanatory AI.
Main Professor: Fabio Vitali
Character: Professor

LESSONS/LECTURES
2020

Università di Bologna - Informatica Magistrale , Bologna
Hands on eXplainable AI
Course: 90720 - USABILITY & USER EXPERIENCE DESIGN.
Degree: Master Degree in Computer Science
Contents:
1) State-of-the-art XAI algorithms.
2) XAI libraries.
3) A real XAI-based application: a credit approval system using neural nets together with a XAI algorithm.
Main Professor: Fabio Vitali
Character: Professor

LESSONS/LECTURES
2020

Università di Bologna - Informatica Magistrale , Bologna
The Need for Explainability in Modern AI
Course: 90720 - USABILITY & USER EXPERIENCE DESIGN.
Degree: Master Degree in Computer Science
Contents:
1) The differences between symbolic and sub-symbolic AI
Pros and cons of sub-symbolic AI.
2) Explainability as a tool to understand the inner logics of sub-symbolic AI.
3) Is explainability the result of extracting (meaningful) symbols out of sub-symbols?
4) How to build explainability: main approaches to eXplainable AI.
Main Professor: Fabio Vitali
Character: Professor

LESSONS/LECTURES
2020

Università di Bologna - Informatica , Bologna
Semantic Web & RDF
Course: 41731 - WEB TECHNOLOGIES
Degree: Bachelor's Degree in Computer Science
Contents: Lecture of 11 May 2020 on Semantic Web and RDF.
Main Professor: Fabio Vitali

LESSONS/LECTURES 2019

Character: Professor

Università di Bologna - Informatica , Bologna
Semantic Web
Course: 75835 - WEB TECHNOLOGIES (1)
Degree: Bachelor's Degree in Computer Science
Contents: Some lessons on Semantic Web, LOD, JSON-LD.
Main Professor: Fabio Vitali
Character: Professor

LESSONS/LECTURES 2019

Università di Bologna - Informatica Magistrale , Bologna
Guidelines for Human-AI Interaction
Course: 85573 - USABILITY AND USER EXPERIENCE (1) (LM)
Degree: Master's Degree in Computer Science
Contents: A 2-hour lesson on guidelines for the design of interaction mechanisms between artificial intelligence and human beings, inspired by some of the latest published works from Microsoft.
Main Professor: Fabio Vitali
Character: Professor

LESSONS/LECTURES 2018

Università di Bologna - Informatica , Bologna
Programmazione
Course: 00819 - PROGRAMMING
Degree: Bachelor's Degree in Computer Science
Contents: Some laboratory lessons on C and C.
Main Professor: Cosimo Laneve
Character: Professor



ATTACHMENTS

Presentation - Stanford Law School

Video of my presentation on 'Automatic Explanation of Explainable Systems', held at Stanford Law School and published on the official Stanford-Codex YouTube channel.
youtu.be/4vkHYYtJ2Us?t=1867

Rise of Kiruru - App

I developed and published an app for iOS and Android: Rise of Kiruru; Date: December 8, 2017
play.google.com/store/apps/details?id=com.kiruru...



ADDITIONAL INFORMATION

I developed and published an app for iOS and Android: Rise of Kiruru; Date: December 8, 2017;
Google Play link: <https://play.google.com/store/apps/details?id=com.kiruru.rok>