Antonio Lanza

Date of birth: 12/12/1996

CONTACT

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https://github.com/antoniolanza1996 **(GitHub)**

WORK EXPERIENCE

01/2021 – CURRENT Rende, Italy

AI Research Scientist & ML Engineer ALTILIA s.r.l.

- Working on the R&D team with the aim of building Altilia Intelligent Automation™ - a no/low-code, IPAaaS (Intelligent Process Automation as a Service) platform - that democratizes the adoption of AI, hyper automation, and decision intelligence at scale in modern organizations of any size.
- Conducting cutting-edge research in AI, including exploring new algorithms, techniques, and approaches for Intelligent Document Processing.
- Designing, implementing, and managing production-ready machine learning pipelines to deliver high-performance and reliable AI solutions.

06/2020 – 12/2020 Rende, Italy

AI Research Scientist Intern ALTILIA s.r.l.

Internship period in which Natural Language Processing (NLP) Transformer-based models were studied and implemented. In particular, Information Retrieval (IR) and Question Answering (QA) models were investigated in order to implement an Open Domain Question Answering (ODQA) system.

EDUCATION AND TRAINING

08/2021 – 09/2021

Passed the professional exam and licensed as a Information Engineer University of Calabria

12/2019 – 05/2020 Dublin, Ireland

Erasmus+ period University College Dublin (UCD)
Semester GPA: 4.04/4.2

08/2018 – 12/2020 Rende, Italy

Master's Degree in Computer Engineering University of Calabria

Field of study: Big Data Analytics e Data Science
Thesis title: Deep Learning techniques for Open Domain Question Answering
Final grade: 110/110 with honors

09/2015 – 09/2018 Rende, Italy

Bachelor's Degree in Computer Engineering University of Calabria

Thesis title: Use of Hidden Markov Models for the interpretation of low-level business process logs
Final grade: 110/110 with honors

08/2010 – 07/2015 Castrovillari, Italy

Science High School Diploma Liceo Scientifico E. Mattei

LANGUAGE SKILLS

MOTHER TONGUE(S): Italian

Other language(s):

English

Listening	Reading	Spoken production	Spoken interaction	Writing
B1	B2	B1	B1	B2

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

ADDITIONAL INFORMATION

Professional skills

Professional skills

- Good knowledge of different Machine Learning tasks: Named Entity Recognition, Question Answering, Multi-Class and Multi-Label Text Classification, Sentiment Analysis, Aspect-based Sentiment Analysis, Document Layout Analysis, Image Classification, Object Detection/ Segmentation, Optical Character Recognition, Text Summarization, Clustering, Topic Modeling.
- Good knowledge of Information Retrieval solutions: both full-text (i.e. syntactic/sparse) and neural (i.e. semantic/dense) search.
- Machine and Deep Learning frameworks/libraries used: PyTorch, deepset's FARM and Haystack, Hugging Face's Transformers and Datasets, UKPLab's Sentence Transformers, Spacy, Scikit-learn, Weights & Biases, ClearML, Detectron2, OpenMMLab's MMCV and MMOCR, Langchain.
- Good knowledge of using Git, Shell scripting and Docker. Basic knowledge of Kubernetes.
- Programming languages: Python and Python.
- Big Data frameworks: Apache Hadoop, Spark and Storm.

Honours and awards

06/2020 DIMES department, University of Calabria

Path of Excellence Winner of a scholarship issued by the DIMES department.
During this period, the Apache Storm framework was studied by creating an application that analyzes tweets published on Twitter in real time and provides, through appropriate graphs, statistics on hashtags and on the origin of users. Furthermore, it is also possible to perform sentiment analysis and spam detection tasks.

24/05/2016 PRAXIS MMT Corp, on behalf of Business Talents, Milan (MI)

BT Simulated Enterprise Program Finalist - 2015 Edition

09/04/2015 PRAXIS MMT Corp, on behalf of Young Business Talents, Milan (MI)

Winner of the YBT Simulated Enterprise program - 2014 Edition

21/03/2014 PRAXIS MMT Corp, on behalf of Young Business Talents, Milan (MI)

Finalist of the YBT Simulated Enterprise program - 2013 Edition

Conferences and seminars

29/05/2023 – 31/05/2023 Ital-IA 2023 - Pisa, Italy

Building a Platform for Intelligent Document Processing: Opportunities and Challenges Abstract: Companies of any size and industry still struggle in automatic business processes where human cognitive and contextualization capabilities are required to read and understand complex documents. Ongoing progress in the fields of Computer Vision and Natural Language Processing, where (large) language models are becoming increasingly and freely available, have made possible to create a new generation of Intelligent Document Processing technologies that allow automatically analyzing and understanding both documents layout and contents. In this paper we present an Intelligent Document Processing platform that makes use of hybrid AI techniques to allow document reading comprehension by means of a combination of Document Layout Analysis and recognition, table recognition and detection, context free grammars, and question answering techniques. Such a technology combines also no-code principles with high performance computing based on micro-services to streamline the execution of tasks such as document and text classification, document segmentation, entity extraction, sentiment analysis, question answering, and more.

Link https://www.ital-ia2023.it/submission/91/paper

24/04/2023 – 26/04/2023 ICEIS 2023 - Prague, Czech Republic

ESG Data Collection with Adaptive AI Abstract: The European Commission defines the sustainable finance as the process of taking Environmental, Social and Governance (ESG) considerations into account when making investment decisions, leading to more long-term investments in sustainable economic activities and projects. Banks, and other financial institutions, are increasingly incorporating data about ESG performances, with particular reference to risks posed by climate change, into their credit and investment portfolios evaluation methods. However, collecting the data related to ESG performances of corporate and businesses is still a difficult task. There exist no single source from which we can extract all the data. Furthermore, most important ESG data is in unstructured format, hence collecting it poses many technological and methodological challenges. In this paper we propose a method that addresses the ESG data collection problem based on AI-based approaches. We also present the implementation of the proposed method and discus s some experiments carried out on real world documents.

Link https://www.scitepress.org/PublicationsDetail.aspx?ID=sCYU36yksCI=&t=1

08/11/2021 – 10/11/2021 Online Conference

Codemotion Online Tech Conference 2021 - Italian Edition | Autumn