

Enrico Benedetti

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EDUCATION

2021 - present **M.Sc. in Artificial Intelligence, University of Bologna** **(CGPA: 3.9/4.0)**
Relevant courses: Natural Language Processing, Computer Vision, Machine Learning, Deep Learning
2018 - 2021 B. Sc. in Computer Engineering, University of Bologna (Final Mark: 107/110)
Thesis title: ‘Cryptographic CTF challenges: theory and techniques’

PROJECTS

Hierarchical deep learning approach for Human Value Detection

 [Link](#)

- Course project in NLP based on [SemEval 2023 Task 4. ValueEval](#): Identification of Human Values behind Arguments.
- We wrote a research work in which we propose and implement a hierarchical approach for the task of extracting human values from textual arguments.
- We tested many variations of the proposed architectures for multi-label text classification.

GarfieldRetrieve: a Deep Metric Learning comic strip Retrieval System

 [Link](#)

- I curated a dataset of Garfield transcribed comic strips, to perform semantic retrieval.
- I built a retrieval system based on Deep Metric Learning using Sentence Transformers and compared it to other techniques such as Latent Semantic Indexing.

Part-of-speech Tagging with Recurrent Neural Networks

 [Link](#)

- As a team, we implemented POS tagging using different architectures based on Recurrent Neural Networks.
- We wrote a paper-style report containing detailed analysis of results and performance.

1D Barcode Quality Verification

 [Link](#)

- My project for the Image Processing & Computer vision course. A jupyter notebook and python script for barcode localization and quality assessment.
- It can produce an analysis according to the IEEE guidelines for barcode quality for multiple images at once.

Capacitated Vehicle Routing Problem

 [Link](#)

- Our team project for the Combinatorial Optimization course.
- We implemented and documented solving strategies and models for CVRP using Constraint Programming, boolean SAT solving, SAT Modulo Theories and Mixed Integer Programming frameworks.

League of Legends Bayesian Network

 [Link](#)

- I built a Bayesian Network model from League of Legends competitive match statistics, in order to perform inference about match outcomes and statistics.

SKILLS

Language Skills	Italian (native); English (C1, IELTS Academic score: 8.0/9.0)
Programming skills	Python, Java, \LaTeX , JavaScript, C, C#, Bash, HTML+CSS, C++, SQL, Prolog, LISP, MiniZinc
Frameworks, Engines, Libraries	NumPy, Tensorflow, pytorch, pandas, huggingface, .NET, OpenCV, z3, Darts
Development Tools & Environments	Git, UNIX/Linux, GIMP, DaVinci Resolve, Unity

INTERESTS

I am very curious about AI and its applications to multiple fields and effects on society. I want to take part in research in the AI field, esp. Natural Language Processing, Computer Vision, Deep Learning and interactions between humans and AI systems.

Other than that, my biggest passion is computer gaming (RPGs, rythm games, eSports). I also greatly enjoy visual arts (esp. animation), music, literature, physical activity, and internet humor.