

ENRICO BENEDETTI

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enricobenedetti.github.io

enribene

EnricoBenedetti

WORK EXPERIENCE

National Institute of Informatics

Researcher

📅 Sep. 2023 – Feb. 2024 📍 Tokyo, Japan

- NLP Research internship during which I wrote a paper (now under review) and prepared my Master thesis.
- Designed and evaluated retrieval and generative systems for proposing sentences suitable for L2 learners.

- Curated a dataset of Garfield transcribed comic strips, to perform semantic retrieval.
- Built a retrieval system based on Deep Metric Learning using Sentence Transformers, comparing it to Latent Semantic Indexing.

NLP

Python

pandas

pytorch

Transformers

EDUCATION

University of Bologna

M.Sc. in Artificial Intelligence

📅 Sep. 2021 – March 2024 📍 Bologna, Italy

Thesis title: "Example Sentence Suggestion for Learners of Japanese as a Second Language Using Pre-Trained Language Models"

CGPA: 28.8/30.

Final grade: 110/110 with honors

Part-of-speech Tagging with RNNs

📅 Nov. 2022 🔄 EnricoBenedetti/pos-tagging

- 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.

NLP

ML

Python

pytorch

1D Barcode Quality Verification

📅 September 2022 🔄 EnricoBenedetti/1DBarcodeQualityVerifier

- 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.

CV

Python

OpenCV

pandas

University of Bologna

B.Sc. in Computer Engineering

📅 2018 – 2021 📍 Bologna, Italy

Thesis title: "Cryptographic CTF challenges: theory and techniques"

Final mark: 107/110

Capacitated Vehicle Routing Problem

📅 August 2022 🔄 EnricoBenedetti/CVRP

- 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.

Minizinc

Python

z3

MIP

SAT

CP

PROJECTS

AICamp Cyprus – Text-to-Image

📅 June 2023 🔄 EnricoBenedetti/AICAMP-text2image

- Research survey for the "MAI4CAREU" project, where we presented and discussed an overview of the main sota approaches for the Text-to-Image task (at the time).

NLP

CV

Midjourney

LaTeX

Human Value Detection with a Hierarchical Deep Learning approach

📅 February 2023 🔄 EnricoBenedetti/HumanValueDetection

- Team project in NLP on SemEval 2023 Task 4. ValueEval: Identification of Human Values behind Arguments.

NLP

Python

keras

TF

LaTeX

Transformers

HUMAN LANGUAGES

Italian: Native

English: Advanced (C1 – IELTS Academic, overall score: 8.0/9.0)

Japanese: Beginner

SKILLS

Some things I have worked with directly.
Ordered by approximate proficiency/relevance.

Programming Languages

Python

Java

LaTeX

JavaScript

C

C#

Bash

HTML+CSS

C++

SQL

Prolog

LISP

Scheme

MiniZinc

GarfieldRetrieve: a Deep Metric Learning approach for Retrieving comic strips

📅 Feb. 2023 🔄 EnricoBenedetti/GarfieldRetrieve

Frameworks, Engines, Libs, etc.

[NumPy](#)[Tensorflow](#)[pytorch](#)[pandas](#)[huggingface](#)[spaCy](#)[OpenCV](#)[Unity](#)[.NET](#)[z3](#)

Development Tools and Environments

[Git](#)[UNIX/Linux](#)[Visual Studio](#)[GIMP](#)[DaVinci Resolve](#)

INTERESTS

I want to learn interesting things and meet people I can look up to. That way, I hope to be able to help others as well. Other than that, my biggest passions are gaming and reading. I also enjoy visual arts (especially animation), music, physical training and internet humor.