

# ENRICO BENEDETTI

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enricobenedetti.github.io

enribene

EnricoBenedetti

## WORK EXPERIENCE

National Institute of Informatics

Researcher – NII International Internship Program

📅 Sep 2023 – Feb 2024 📍 Tokyo, Japan

- I proposed and worked on a project studying how to improve the quality of example sentences for language learners, communicating with other researchers.
- I wrote an article (under peer review) and prepared my Master thesis.

## 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

University of Bologna

B.Sc. in Computer Engineering

📅 Sep 2018 – Dec 2021 📍 Bologna, Italy

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

Final mark: 107/110

## PROJECTS

AIcAMP Cyprus – Text-to-Image

📅 Jun 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

GarfieldRetrieve: a Deep Metric Learning approach for Retrieving comic strips

📅 Feb 2023 🔄 EnricoBenedetti/GarfieldRetrieve

- 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

Human Value Detection with a Hierarchical Deep Learning approach

📅 Feb 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

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

📅 Sept 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

Capacitated Vehicle Routing Problem

📅 Aug 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

## HUMAN LANGUAGES

Native Italian

Fluent English, Beginner Japanese

## 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

## Frameworks, Engines, Libs, etc.

NumPy

Tensorflow

pytorch

pandas

huggingface

spaCy

OpenCV

Unity

.NET

z3

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## Development Tools and Environments

Git

UNIX/Linux

Visual Studio

GIMP

DaVinci Resolve

# INTERESTS

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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 like visual arts (especially animation), music, physical training and internet humor.