

# ENRICO BENEDETTI

✉ email | [🌐 LinkedIn](#) | [🐙 GitHub](#) | [🌐 Website](#) | 📍 Utrecht, the Netherlands

## EDUCATION

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**PhD candidate**, *Utrecht University*

**M.Sc. in Artificial Intelligence**, *University of Bologna*

*Sept 2021 – Mar 2024*

**CGPA:** 28.8/30; **Final grade:** 110/110 with honors.

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

**B.Sc. in Computer Engineering**, *University of Bologna*

*Sept 2018 – Oct 2021*

**CGPA:** 27.7/30; **Final grade:** 107/110.

**Thesis:** *Theory and methods for solving Cryptography CTF challenges (Capture The Flag).*

## PUBLICATIONS

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Enrico Benedetti, Akiko Aizawa, and Florian Boudin. Automatically suggesting diverse example sentences for L2 Japanese learners using pre-trained language models. In *Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics (Volume 4: Student Research Workshop)*, August 2024. [paper](#) | [code](#)

## EXPERIENCE

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**National Institute of Informatics**

Tokyo, Japan

*Research intern*

*Sept 2023 – Feb 2024, Full-time*

- Proposed and worked on a project investigating how to improve the quality of example sentences for language learners using LLMs.
- The main research contributions included a corpus of over 12M sentences, generative and retrieval models, human evaluation experiments and detailed analysis of the collected data.
- Participated in the lab's weekly activities, such as seminars and reading groups with other researchers, and gave presentations.

## PROJECTS

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**AICamp – Text-to-Image** | [GitHub](#)

*June 2023*

- Research survey for the MAI4CAREU project in collaboration with the University of Cyprus.
- Presented and discussed the main sota approaches for the Text-to-Image task, GANs and Diffusion models.

**GarfieldRetrieve: a Deep Metric Learning approach for Retrieving comic strips** | [GitHub](#)

*Feb 2023*

- Curated a dataset of Garfield transcribed comic strips, to perform semantic retrieval.
- Built a retrieval system with Deep Metric Learning and Sentence Transformers, comparing with other methods.

**Human Value Detection with a Hierarchical Deep Learning approach** | [GitHub](#)

*Feb 2023*

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

**Part-of-speech Tagging with RNNs** | [GitHub](#)

*Nov 2022*

- Implemented POS tagging using different architectures based on Recurrent Neural Networks.
- Wrote an article detailing analysis of results and performance.

**1D Barcode Quality Verification** | [GitHub](#)

*Sept 2022*

- Project for the Image Processing & Computer vision course. A Jupyter notebook and scripts for barcode localization and quality assessment.
- It can produce an analysis according to the IEEE barcode readability guidelines for multiple images at once.

**Capacitated Vehicle Routing Problem** | [GitHub](#)

*Aug 2022*

- Team project for the Combinatorial Optimization course.
- 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** | [GitHub](#)

*April 2022*

- Built a Bayesian Network model of League of Legends competitive match statistics, used to perform inference about win or loss and more match parameters.
- Worked on data preprocessing and feature selection.

## SKILLS

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**Languages:** Italian (native), English (fluent), Japanese (beginner), French (beginner)

**Programming languages:** Python, LaTeX, Java, C, C#, JavaScript, HTML, CSS, Bash, SQL, Prolog, C++, MiniZinc

**Frameworks, Engines, Libraries, etc.:** TensorFlow, PyTorch, pandas, Hugging Face, spaCy, OpenCV, Unity, z3, Git, UNIX/Linux, Visual Studio Code, GIMP, DaVinci Resolve