# **UMBERTO SELVA**

# NLP / AI Engineer, Linguistics PhD

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Italy / Netherlands

English, Italian



# **PROFILE**

I am a former post-doctoral researcher and university lecturer with a PhD in Linguistics from Leiden University in the Netherlands. After a career in academia, I trained and freelanced as an NLP specialist, acquiring a broad expertise across Machine Learning and Data Science, with a solid foundation in Software Development. I currently work as an Artificial Intelligence Engineer, and I specialize in designing LLM-powered solutions and Prompt Engineering for a web platform in the pharmaceutical sector. I continue to offer freelancing services.

**EXPERIENCE** Updated: March 2024

# Al Engineer

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Pharmazie.com is a web platform that gathers data from over 25 databases to provide reliable information on pharmaceutical products to healthcare professionals.

My task is to develop all Generative AI and NLP products, such as LLM-powered conversational assistants (chatbots), APIs, web applications, and pipelines, designing all steps from text and table data extraction, vectorization / embedding, retrieval augmented generation (RAG), data formatting, fine-tuning and prompt engineering, all the way to server management and production deployment on AWS.

Skills: Python, NLP, LLMs, OpenAI, GPT, LangChain, LlamaIndex, Huggingface Transformers, Prompt Engineering, Retrieval Augmented Generation, API, Back-end Web Development, AWS Cloud

# NLP / AI / ML / Data Science Consultant

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Between 2020-2022 I transitioned from academia to the private sector, training in NLP, Al, Machine Learning and Data Science, and offering freelancing services.

Skills: Python, NLP (NLTK, spaCy, etc.), ML/DL (Tensorflow, Keras, Scikit-Learn) Data Science (Pandas, NumPy, Matplotlib, etc.), Statistics, Web Development (FastAPI, Flask, Streamlit, etc.), SQL, bash/zsh, Linux, git, Docker

# Academic Researcher and Lecturer (Linguistics)

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Between 2014-2020, I was research assistant, then PhD researcher, post-doctoral researcher and lecturer at the Leiden University Centre for Linguistics (2014-19) and the International Institute for Asian Studies (2019-20).

Skills: Linguistics (General, Historical, Computational), Academic Research, Academic Writing, Academic Publishing, Teaching, Research Project Management,

## **EDUCATION AND PRIZES**

• PhD Linguistics (Leiden University, 2019) • Two-year Research MA Linguistics (Leiden University, 2014, grade: 9) • BA Classics (University of Turin, 2011, grade: 110/110 cum laude) • 2015 First Prize for Best MA Thesis in Indo-European Linguistics awarded by the Indogermanische Gesellschaft

## CERTIFICATIONS

• Natural Language Processing Specialization (Deeplearning.ai, 2022) • NLP with Transformers in Python (Udemy, 2022) • Machine Learning (Stanford, 2020) • Deep Learning Specialization (Deeplearning.ai, 2022) • Statistics for Data Science with Python (IBM, 2022) • Practical Data Science on the AWS Cloud (AWS & Deeplearning.ai, 2022)