

# **UMBERTO SELVA**

Linguistics PhD, NLP Specialist Python, Deep Learning, Data Science



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github.com/umbertoselva

## **PROJECTS**

### github.com/umbertoselva

My portfolio of NLP, ML and Data Science projects:

- A Museum chatbot with GPT-3.5 and LangChain
- A GPT-3 app that removes bias from news articles
- Fine-tuning BERT with TensorFlow for NER-based sentiment analysis on a real world dataset
- Exploratory data analysis with custom utils

#### sanskritmeterscan.net

A digital humanities Python Flask web app that automates the metrical scansion of Sanskrit poetry

### EXPERIENCE

### Post-doctoral Researcher (Linguistics) and NLP Engineer

Freelance - 2020-today

#### **Post-doctoral Researcher**

**IIAS - International Institue for Asian Studies** Leiden, Netherlands - 2019-2020

#### **Doctoral Researcher and Lecturer**

**LUCL - Leiden University Centre for Linguistics** Leiden, Netherlands - 2016-2019

#### **Research Assistant**

**LUCL - Leiden University Centre for Linguistics** Leiden, Netherlands - 2015

## **EDUCATION**

#### PhD Linguistics

Leiden University, Netherlands - 2019

### **Research MA Linguistics**

Leiden University, Netherlands - 2015

#### **BA Classics / Linguistics**

Università degli Studi di Torino, Italy - 2011

## LANGUAGES

Native-level proficiency: English, Italian. Grammatical knowledge of various modern and classical / ancient languages.

## **CERTIFICATIONS**

### **Natural Language Processing Specialization**

Deeplearning.ai - Jan 2022 (four-month program)

- Courses: (1) NLP with Attention Models,
  - (2) Sequence Models, (3) Probabilistic Models,
  - (4) Classification and Vector Spaces

### **NLP with Transformers in Python**

Udemy - Jul 2022

#### **Machine Learning**

Stanford Online - Aug 2020

### **Deep Learning Specialization**

Deeplearning.ai - Nov 2022

 Courses: (1) Neural Networks and Deep Learning, (2) Hyperparameter Tuning, Regularization and Optimization, (3) Structuring Machine Learning Projects

### **Statistics for Data Science with Python**

IBM - Oct 2022

#### Statistics with Python Specialization

University of Michigan - Currently enrolled

#### Practical Data Science on the AWS Cloud

AWS & Deeplearning.ai - Dec 2022

 Courses: Build, Train and Deploy ML pipelines using BERT with Amazon SageMaker

## **SKILLS**

- Python, SQL (MySQL), Prompt Engineering
- NLP (spaCy, NLTK, Huggingface, OpenAl, LangChain; RNN, LSTM, Transformers, BERT, GPT, LLMs, etc.)
- ML / DL (Scikit-learn, Tensorflow, Keras)
- MLOps (MLFlow, AWS SageMaker, Docker)
- Data Science (Pandas, NumPy, Matplotlib, Seaborn)
- Web App Dev (Flask, FastAPI, Gradio, Streamlit)
- Other (git, Linux, bash/zsh, Jupyter Notebook)