



Andrés Cabero Busto

MACHINE LEARNING ENGINEER · SOFTWARE ENGINEER

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Skills

DevOps Docker

AI & ML Python, Slurm, PyTorch, PyTorch Lightning, HuggingFace, Captum, SpaCy, NLTK

Programming Python, Rust, JavaScript, TypeScript, HTML, CSS, LaTeX

Languages Spanish, English, Italian, German

Other Linux, NixOS, Nix, Bash, CLI, Git

Experience

Sony Research

Stuttgart, Germany

MASTER THESIS STUDENT

Apr. 2023 - Oct. 2023

- Performed domain-adaptation on an open-source, self-supervised (SSL) speech recognition model.
- Experimented with regularization-based and replay-based continual learning methods to avoid incurring into catastrophic forgetting on the old Librispeech ASR task.

Sony Research

Stuttgart, Germany

WORKING STUDENT

Jul. 2022 - Mar. 2023

- Developed a natural language grammar based on weighted finite-state transducers (WFSTs) and the Thrax framework, similar to NVIDIA NeMo grammars, that enabled a 10% WER improvement for the pre-existing Italian ASR system.
- Time-aligned and transcribed speech utterances using Label Studio for use in text-to-speech (TTS) model training.

University of Stuttgart

Stuttgart, Germany

PYTHON DEVELOPER

Jul. 2022 - Dec. 2022

- Developed the core of a toolkit for academic NLP research in lexical semantic change detection (LSCD), openly available at <https://github.com/ChangeIsKey/LSCDBenchmark>

University of Stuttgart

Stuttgart, Germany

LINUX SYSTEM ADMINISTRATOR

Jul. 2022 - Mar. 2022

- Administration and maintenance of Linux servers and users.

University of Stuttgart

Stuttgart, Germany

DATA ANNOTATOR

Nov. 2021 - Jan. 2022

- Data annotator for the first Shared Task of Lexical Semantic Change Discovery in Spanish (<https://fdzr.github.io/lscdiscovery/>). The process involved annotating the degree of difference between uses of the same word based on the surrounding context, using a Likert scale.
- Identified some problems in the annotation platform, and developed a small JavaScript solution to help my teammates and I work more efficiently.

Education

M.Sc. Computational Linguistics

Apr. 2021 - Oct. 2023

INSTITUT FÜR MASCHINELLE SPRACHVERARBEITUNG (UNIVERSITY OF STUTTGART)

Stuttgart, Germany

- Achieved an in-depth understanding of modern deep learning (DL) and natural language processing (NLP) techniques.

B.A. Linguistics

Sept. 2016 - Dec. 2020

UNIVERSITY OF CÁDIZ

Cádiz, Spain

- Took several courses related to programming, natural language processing (NLP) and computer science (CS), achieving honors in several of them.