

DUYGU BAYRAM

ARTIFICIAL INTELLIGENCE

Sponsorship not required.

EDUCATION

Groningen & Saarland University, 2025

Artificial Intelligence / NLP, MSc (Erasmus Mundus Double Degree)
Student council.

Bogazici University, Istanbul, 2021

Linguistics Focus, BA
IT Director & Author & Editor at student bulletin.

RELEVANT EXPERIENCE

Menzis, Intelligence Analyst

Internship, 02/2023 - 07/2023

- Responsible for building a specialized pipeline for the **anonymization** and **analysis** of **Dutch customer calls** using **machine learning**.
- Found creative solutions for the lack of access to GPU and the complete data as an intern by combining **classical methods, pretrained models**, and **data augmentation**.
- Python, PyTorch, Huggingface, Sklearn, Pandas, Numpy, Seaborn, Spacy, Matplotlib, Azure

Ergin Language Lab, Research Assistant

RA on scholarship, 10/2020 - 08/2021

- Contributed to discussions and ideas** during weekly lab meetings across **multiple disciplines** spanning across AI, Linguistics, CogSci, Philosophy.
- Annotated and discussed **gesture data** for **computational modeling** of a **low resource emerging sign language** alongside **following the tutorial** for it.

LANGUAGES

- English (IELTS 8.5, C2)
- German (Course, B1)
- Dutch (Course + Self Study, A2/B1)
- Turkish (Native)

HIGHLIGHTS

- 4 years of experience in Natural Language Processing in academia as a student.
- Understanding of ML/DL techniques and ability to implement them for different tasks.
- Strong grasp of linguistics concepts and their potential influence on models.

TECHNICAL SKILLS

- Python, SQL, Bash Script, C/C++, R
- PyTorch, TensorFlow, Sklearn, HF, Spacy
- Pandas, Seaborn, Matplotlib
- Azure, SPSS, Slurm, git

NOTABLE PROJECTS

• *Master's Thesis, 2025*

Worked on **conspiracy detection**, specifically to **differentiate** conspiratorial thinking **from critical thinking**. Compared and experimented with **fine-tuning** and **prompt engineering** across various **BERT-based models** and an **LLM** using different **features extracted** from the dataset.

• *ACL Paper, Explainable Sexism Detection*

Compared **fine-tuning** and **multi-task learning** for **binary and fine-grained sexism classification** for the **Explainable Detection of Online Sexism** task with a team.

• *Machine Sign Language Translation Project*

With a teammate, we adopted a paper to perform **machine translation for sign language** using **human keypoint estimation**. We employed **feature normalization** and **data augmentation** techniques and chose an **RNN model (BiLSTM)**.

• *Natural Language Explanation Project*

With a project partner, we experimented with a **T5 model** and an offensive words list to render our **offensive speech classification** system more **explainable**. Additionally, we tested different **prompting techniques** and analyzed whether **linguistic complexity** influences model performance.