

- 🗹 deniz.eyavas@gmail.com
- Düsseldorf, Germany
- Personal Website
- in LinkedIn
- GitHub

#### Languages:

English	Fluent
Turkish	Native
German	Intermediate

### Programming:

Python (Pytorch, Scikit-learn, Transformers)

### Interests:

Large Language Models, Interpretability & Explainability, Linguistic Creativity

# Deniz Ekin Yavas

**Computational Linguist** 

# Work experience

## **Doctoral Researcher**

Feb 2021 - present

Heinrich Heine University, Germany

- I am working as a researcher in the DFG-funded project "Coercion and Copredication as Flexible Frame Composition". PIs: Laura Kallmeyer, and Rainer Osswald.
- I work with Large Language Models and explore and exploit their ability to deal with meaning flexibility in language.
- I experimented with different methods using Large Language Models: data augmentation, zero-shot cross-lingual transfer, fine-tuning, feature extraction, adversarial forgetting, interpretability, and explainability.

### Visiting Researcher

#### Sep 2023 - Dec 2023

Paris Diderot University, France

- · The research stay was funded by Labex EFL.
- · Supervisors: Timothée Bernard, and Benoit Crabbé
- I developed and executed a project to improve word sense induction performance by erasing information from the representations of Large Language Models using adversarial forgetting.

### Linguist

#### Oct 2020 - Feb 2021

Appen, Remote

• I was responsible for creating language tests for Turkish for the employment process of the annotator of the Turkish NLP tasks.

# Education

### PhD. in Computational Linguistics.

#### Feb 2021 - July 2020

Heinrich Heine University, Germany

Thesis Title: Data-Driven Investigation of Inherent Polysemy using Contextualized Language Models

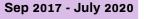
### MA. in General Linguistics.

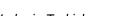
Dokuz Eylul University, Turkey

Thesis Title: Contextualized Teaching of Polysemous Verbs in Turkish as a Foreign Language

### BA. in General Linguistics.

Istanbul University, Turkey Graduated with First-Class Honors





Sep 2013 - June 2017

# **Publications & Talks**

Yavas, D. E. Assessing the Significance of Encoded Information in Contextualized Representations to Word Sense Disambiguation. UnImplicit Workshop EACL 2024.

Yavas, D. E., Ricchiardi M., Ježek E., Kallmeyer L., Osswald R. & Chen, L. Identifying Semantic Argument Types in Predication and Copredication Contexts: A Zero-Shot Cross-Lingual Approach. RANLP 2023.

Yavas, D. E., Ricchiardi M., Ježek E., Kallmeyer L. & Osswald R. Automatic Detection of Copredication using Contextualized Word Embeddings. BriGap Workshop ESSLLI 2022.

Yavas, D. E. & Uzdu Yıldız, F. Contextualized Teaching of Different Senses of "al-" in Turkish as a Foreign Language. Journal of Language Education and Research 2021.

# **Grants & Funding**

Training Fund Equal Opportunities Center, Heinrich Heine University Training Fund for the AI Summer School ESSAI Amount: 500 €	May 2023
Incoming Mobility Grant Labex EFL Mobility grant for a 3-months research stay at a university in France Amount: 3,500 € + Transport Costs	Dec 2022
Organizational Experience	Sept 2023
Technische Hochschule Ingolstadt, Germany PhD Event at National Conference on NLP 🔗	36pt 2023
RRG 2023 Heinrich Heine University, Germαny International Conference on Role and Reference Grammar <i>δ</i>	August 2023
TaCOS 2023	June 2023

National Student Conference of Computational Linguistics *§* 

# Teaching

Language Model Interpretability. Summer Semester 2024. Heinrich Heine University, Germany.

# Volunteering

### Writer

CogIST

May 2023 - present

CogIST  $\mathcal{O}$  is a community formed by a group of people who love cognitive science in Turkey. It aims to gather cognitive science lovers together by organizing events, increase the popularity of the field in Turkey, and educate people more on the topic.

My main responsibility is to write blog posts on the intersection between AI and cognitive science. My latest blog post series in Turkish focuses on the cognitive plausibility and the interpretability of the large language models  $\mathcal{O}$ .

# Certifications

ESSAI (European Summer School on Artificial Intelligence) Ljubljana University, Slovenia	24 - 28 July 2023
ESSLLI (European Summer School in Logic, Language and Information) National University of Ireland, Ireland	8 - 19 Aug 2022
ESSLLI (European Summer School in Logic, Language and Information) Online	26 July - 13 Aug 2021