# Yana Veitsman

## Education

#### Universität des Saarlandes

Oct 2023 — Sep 2025

MSc Language Science and Technology, CGPA: 1.6/1.0 (German scale)

Saarbrücken, Germany

- Master Thesis: Why Cross-Lingual Alignment Fails for Better Cross-Lingual Transfer?
- $\circ$  Organizer of LangLunches informal inter-department research talks
- o Student Council President

## American University in Bulgaria

Jan 2019 — Dec 2022

BA Computer Science (Summa Cum Laude), CGPA: 3.93/4.0

Blagoevgrad, Bulgaria

- o Bachelor Thesis: NLP-based Social Media Post Generator
- o Major: Computer Science
- o Minors: Mathematics, Modern Languages and Cultures (Spanish language focus)

#### Universitat de València

Feb 2021 — Jun 2021

Erasmus+ exchange, Department of Computer Engineering

València, Spain

 $\circ\,$  1st class grade in the course Data Mining and Machine Learning (out of 30 students)

# Research Experience

### Research Assistant, Universität des Saarlandes

Feb 2024 — now

Supervisors: Prof. Michael Hahn, Prof. Vera Demberg

Saarbrücken, Germany

- o Currently co-leading a project on exploring persistent theoretical limitations in pre-trained LLMs
- Co-authored a paper on the mechanisms behind in-context learning in Gemma model family
- o Co-authored a paper on expressivity of state space models (SSMs) using formal languages framework

**Research Assistant**, German Research Center for Artificial Intelligence (DFKI) Supervisors: Dr. Simon Ostermann, Dr. Cennet Oguz

Feb 2024 — Oct 2024 Saarbrücken, Germany

• Streamlined annotation, validation, and pre-processing of data for multimodal anaphora resolution

## **Industry Experience**

#### Software Developer

Dec 2021 — Dec 2022

VMware Bulgaria

Sofia, Bulgaria

- o Integrated an LLM-based search system with a documentation portal using RabbitMQ, Python, and .NET
- o Developed a graphic design requests portal in .NET and Angular, used by 90+ technical writers

## Junior Backend Developer

Jun 2021 — Dec 2021

Social Paragraph, schip.gent startup

Brussels, Belgium

o Developed a Python app for generating tweets from web-scraped content under tight computational limits

## Honors, Awards, and Scholarships

## **Professional Development Grant**

Dec 2024

American Councils for International Education

• Awarded a grant for conference travel among 8000 FLEX program alumni

## Best Group Project Award, 3rd place (out of 14)

Jul 2024

Universität des Saarlandes, Data Science course

• Led the project titled Predicting Processing Times in Resource-Constrained Manufacturing Settings with Transformer-Based and Regression Analysis Models

## Outstanding Achievement in Computer Science

Apr 2023

American University in Bulgaria

• Awarded in the Foundations of Computing concentration among the graduating class of 200 students

## Outstanding Achievement in Modern Languages and Cultures

Apr 2023

American University in Bulgaria

• Awarded in Spanish language studies among the graduating class of 200 students

## Conferences and Schools

The 31st International Conference on Computational Linguistics Jan 2025 The 1st Workshop on Language Models for Low-Resource Languages Abu Dhabi, UAE

Poster Presenter, Session Chair

Dec 2024 The 38th Annual Conference on Neural Information Processing Systems Vancouver, Canada

Poster Presenter

Sep 2024 The 2nd Athens Natural Language Processing Summer School Athens, Greece

Participant

May 2024 The 33rd Computational Linguistics Student Conference Saarbrücken, Germany

Speaker

Talks and Workshops

LLM Prompting Strategies for Everyone May 2025

IT-Hub Terricon Valley Karaganda, Kazakhstan

Mar 2025

Sep 2022 — Dec 2022

Sep 2020 — Dec 2020

Remote

Hands-On AI for Students

FLEX Alumni Community Grant Project

May 2024 Transformers or RNNs or SSMs: Who's More Sensitive? Saarbrücken, Germany TaCoS, The 33rd Computational Linguistics Student Conference

May 2023 **Introduction to Natural Language Processing** Karaganda, Kazakhstan

IT-Hub Terricon Valley

Apr 2022 Comparing Modeling of Russian and English Languages Blagoevgrad, Bulgaria

from the Point of View of NLP Potential The 17th Fellowship of the Mind Student Conference

Teaching and Mentorship

ABLE Mentor Program Mentor

American University in Bulgaria

Advised a 10-th grade local high school student in writing and publishing a book on car tuning

American University in Bulgaria

C++ Subject Tutor

• Conducted tutoring sessions for 20+ students, helping them grasp the concepts of OOP in C++

Skills

Spoken Languages: Russian (Native), English (C2), Spanish (C1), German, Bulgarian, Kazakh (A2)

**Programming Languages:** Python, C# (.NET), C++, SQL

Machine and Deep Learning: numpy, pandas, PyTorch, HuggingFace transformers, TransformerLens

Tools: Git, Bash, Linux, Docker, AWS/Azure, Weights & Biases, Hydra

Coursework Highlights

Linguistics: Computational Linguistics, Speech Science, Semantic Theory

Mathematics: Real Analysis, Automata, Formal Languages and Applications, Statistics with R

Machine and Deep Learning: Data Mining and Machine Learning, Elements of Machine Learning, Neural Networks: Implementation and Application

Research Seminars: Aligning Language Models with Human Preferences: Methods and Challenges, NLP for Low-Resource Languages, Robust and Efficient NLP