

# Stan Fris

MSc Artificial Intelligence | University of Amsterdam

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## Summary

Graduate student in Artificial Intelligence with a strong research focus on Natural Language Processing and Information Retrieval. Experienced with state-of-the-art machine learning methods, including LLM fine-tuning, LLM-based rewriting, and conversational search. Research experience includes projects in learning to rank, recommendation systems, and robust neural retrieval models. My future interest lies in bridging theory and practice, and tackling new challenges.

## Education

### Master Artificial Intelligence, University of Amsterdam

2024–Present

GPA 8.0,

Focus: Information Retrieval (Search, Recommendation), Natural Language Processing

Thesis with Harrie Oosterhuis on more robust optimization of Two-Tower Models (ongoing).

### Bachelor Artificial Intelligence, University of Amsterdam

2021 – 2024

Cum Laude, GPA 8.7

Minor Education Sciences

## Selected Projects

### Frequency Rescaling in Sequential Recommendation (Pytorch)

Investigated discrete signal processing–based frequency rescaling methods for sequential recommendation. We, extended prior work by analyzing padding strategies, showing a significant impact on model performance.

Awarded *Best Poster* (out of 200 MSc AI students); manuscript under review for ECIR 2026

### Practical identifiability in Unbiased Learning to Rank (Jax, Flax (NNX))

During a research internship with Philipp Hager at the Information Retrieval lab at the UvA I independently researched how identifiability can be diagnosed in Two-Tower models using a framework based on work from the field of Bioinformatics.

Manuscript in preparation for SIGIR 2026

### Fairness of Vision Language models in Healthcare (Pytorch)

Conducted a reproducibility study of a paper which introduces a novel framework for improving group fairness of CLIP. We expanded the original framework to be able to account for multiple types of group fairness at the same time, improving the flexibility of the model.

[\[Paper\]](#) [\[GitHub\]](#)

### Domain Adaptation for Low-Resource Biomedical Translation (Pytorch)

Project on Low-Resource Neural Machine Translation, expanded upon several open directions in Domain Adaptation by adapting LESS, a framework from Instruction tuning for data selection to data selection in Domain Adaptation.

[\[Paper\]](#) [\[GitHub\]](#)

## Technical Skills

Python (Pytorch, Tensorflow, Jax, Flax, NNX), Slurm, C, C++, SQL

## Work Experience

### **Teaching-Assistant and Tutor, Amsterdam**

2023–Present

Teaching-Assistant in the Bachelor Artificial Intelligence, Teaching courses on machine learning, calculus and formal logic.

### **ProRail, Internship**

2023–2024

Internship at ProRail in the planning team for a period of 6 months, independently developed a predictive planning algorithm for Railway maintenance.

### **Faculty Student Council UvA, Amsterdam– Chair**

2022–2023

Chair of the Faculty Student Council of the UvA at the Faculty of Science, for one year, I chaired meetings, held contact with the Directive Board, Workers Council and Central Student Council. Personal files included diversity, inclusivity and events.

## Volunteering Experiences

### **Student Party Lief, Selection Committee**

2023–2025

Interviewing and selecting new candidates for Student Party Lief.

### **Education Committee Artificial Intelligence, Amsterdam**

2023–Present

Student Member of the Education committee

### **Studentenpartij Lief, Chair**

2022–2023

Chair of the largest student party of the FNWL.

### **Study Association via, Committee member**

2021–2024

Organising small activities in order to attract new members to the association.