

LEON ESHUIJS

PhD Student

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in leoneshuijs

EDUCATION

PhD Student

Vrije Universiteit Amsterdam

- Oct 2023 present
- Amsterdam, Netherlands
- Research on applying Reinforcement Learning to specialize NLP models
- Recently incorporating Mechanistic Interpretability
- In collaboration with the Universiteit Utrecht

Master Physics - M1

Sorbonne Université

- **Sep 2022 Jan 2023**
- Paris, France
- Following as Erasmus the first semester of the Physics Mas-

Master Artificial Intelligence

University of Amsterdam

- **Sep 2020 Apr 2023**
- Amsterdam, Netherlands
- Electives: Specialized in advanced Machine Learning, Game Theory, Computer Vision and Reinforcement Learning.
- Thesis: "Knowledge Injection through Prompting (KIP): improving image captioning by leveraging knowledge graphs for Transformers". Grade: 8.0/10.0
- GPA: 8.3/10.0 Cum Laude

Bachelor Artificial Intelligence

University of Amsterdam

- **Sep 2017 Aug 2020**
- Amsterdam, Netherlands
- For the honours program I followed courses in Physics and Big History and Psychopharmacology.
- Minor: Electronics for Robotics TU Delft
- Thesis: Reinforcement learning for PID tuning of robot arm.
- GPA: 8.0/10.0 graduated Cum Laude and with Honours

EXPERIENCE

Al Engineer

Saivvy

- **Sep 2020 May 2021**
- Amsterdam, Netherlands
- Maintained and expanded the code base for the computer vision projects, including object detection.
- Assisted in the coordination and supervision of Master student projects.
- Constructed the control framework for a harvest robot in simulation.

PROJECTS

Al Safety Camp - Unsearch

- **i** Jan 2024 Apr 2024
- As a participant in the Al Safety Camp, I joined the <u>UnSearch</u> team to help understand search in Transformer models
- Investigated path following and world models in Transformer models for mazes via Mechanistic Interpretability technique Path Patching.

SpotMicroAl: RL for gait modulation - Sim2Real gap

- **J**un 2022 Feb 2023
- Based on the open-source SpotmicroAl platform, I 3D printed and built Jake myself, and then trained different Reinforcement Learning (RL) algorithms for the task of gait modulation.
- See website for more information and videos: link

EVENTS

Human-aligned AI Summer School

EAGxUtrecht - Effective Altruism Conference

Participant

Nov 2023

■ Utrecht, Netherlands

Belgium Netherlands AI Conference

Demo and Poster Presentation

Nov 2023

▼ TU Delft

TECHNICAL SKILLS

Experienced with

Pytorch Python

Slurm

HTML

Conda

Familiar with

MATLAB

Keras

CSS Docker

Azure Machine Learning

PERSONAL INTERESTS

Memory Athlete

Robotics

Effective Altruism

Inclusive Al

Al Safety

LANGUAGES

Dutch English French (B1)

