



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

- Erasmus following the first semester of the Physics Master.

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

AI 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

AI Safety Camp - Unsearch

Jan 2024 - Apr 2024

- As a participant in the [AI Safety Camp](#), I joined the [UnSearch](#) 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.

SpotMicroAI: RL for gait modulation - Sim2Real gap

Jun 2022 - Feb 2023

- Based on the open-source SpotmicroAI platform, I 3D printed and built my robot dog, Jake, and then trained different Reinforcement Learning (RL) algorithms for the task of gait modulation.
- See website for more information and videos: [link](#)

EVENTS

Summer School: Human-aligned AI

[Participant](#) July 2024 Prague, Czech Republic

Hackathon: Deception Detection ([link](#))

[Participant](#) Jun 2024 Online - Apart Research

Conference: EAGxUtrecht - Effective Altruism

[Participant](#) Nov 2023 Utrecht, Netherlands

Hackathon: Enhancing Research Productivity ([link](#))

[Participant - 2nd place](#) Feb 2024 Kaiserslautern, Germany

Conference: BNAIC ([link](#))

[Demo and Poster Presentation](#) Nov 2023 TU Delft

TECHNICAL SKILLS

Comfortable with

Python Pytorch Keras Slurm Conda

Familiar with

C R SQL MATLAB HTML CSS Docker
Azure Machine Learning GCP

PERSONAL INTERESTS

Memory Athlete Robotics
Effective Altruism Inclusive AI AI Safety

LANGUAGES

Dutch
English
French (B1)

