

# Derck Prinzhorn

## Curriculum Vitae



### Profile

MSc AI student with the ambition to innovate society. Recently finished my BSc thesis on conformal prediction for time series. Now I'm pursuing a MSc and possibly later a PhD in AI, for which I'm looking to gain research experience. Next to my studies I have several side jobs, working as a Machine Learning Architect, ML Engineer and Project Manager.

### Education

2023 – 2026 **Master of Science Artificial Intelligence**, *University of Amsterdam*.

2020 – 2023 **Bachelor of Science Artificial Intelligence**, *University of Amsterdam*, Cum Laude, Grade: 8.2/10.

**Bachelor thesis:** Benchmarking conformal prediction methods for time series regression. Grade: 8.5/10

2014 – 2020 **VWO Gymnasium, N&G en N&T and economics**, *Het Amsterdams Lyceum*.

### Relevant work experience

2023 – present **Machine Learning Architect**, *Politie Nederland*, Amsterdam.

Working on putting Responsible AI into practice using the MLOps Lifecycle. This includes components, such as technical tools, project management, model pipelines and governance. Additionally paying attention to possible other AI Safety opportunities.

2022 – present **Machine Learning Engineer**, *Dutch Nao Team*, Amsterdam.

Worked on several projects, such as *Pose classification using MoveNet and RNN*, *Robot and ball detection using YOLOv8*, *Whistle detection using MFCC and NN*, *Reinforcement learning for behaviours*. Additionally I have the role of project manager and scrum master.

2021 – 2023 **Software Engineer | Team Lead**, *LeerLevels*, Amsterdam.

Worked on several projects, such as *an automatic grading algorithm*, *a custom search engine*, *a physics topic predictor (based on text in an image)*, *a recommender system for physics topics* and on an app development project as company supervisor.

### Teaching

Spring 2023 **Information Visualization**.

Teaching assistant for Bachelor's course at UvA

Spring 2023 **Cognitive Modelling (Reinforcement Learning)**.

Teaching assistant for Bachelor's course at UvA

- Winter 2022 **Datastructures and Algorithms.**  
Teaching assistant for Bachelor's course at UvA
- Winter 2022 **Machine Learning and Decision making.**  
Teaching assistant for Bachelor's course at UvA
- Fall 2022 **Introduction to Machine Learning.**  
Teaching assistant for Bachelor's course at UvA
- Fall 2022 **Bayesian Statistics for Machine Learning.**  
Teaching assistant for Bachelor's course at UvA

## Projects

- November 2023 **AI Safety Hackathon, 2nd place, *Entrepreneur First & Apart Research & TU Delft.***  
During this AI Safety Hackathon, we developed a novel method to automatically inspect a Large Language Model which allows for reverse engineering decisions and even steering model behaviour of any AI model. Our team achieved second place.
- November 2023 **Amsterdam AI Thesis Award Winner, *AmsterdamAI.***  
My Bachelor thesis on conformal prediction for time series got selected as the best thesis at the yearly AmsterdamAI Thesis Awards.
- June 2022 **Robotics Hackathon ERF2022, 2nd place, *European Robotics Forum.***  
During the European Robotics Forum I participated in the Robotics Hackathon. My role was to be Scrum master & python developer. In two weeks time we created robot software for the Lely Juno robot, without any prior robotics experience. We became second, with our competition being robotics master students.
- January 2022 **Machine Learning Project, *KR&A.***  
One month Machine Learning project for KR&A. The goal was to find historic drivers of real estate valuation growth by using ML techniques.

## Volunteering and organising

- Member **AI Safety Initiative Amsterdam (AISIA), *September 2023 – present, Amsterdam.***
- Vice Chair **Foundation Dutch Nao Team, *July 2023 – present, Amsterdam.***  
Responsibilities include refining board processes, recruitment and partnerships.
- Member **Programme Committee AI UvA, *September 2021 – April 2023, Amsterdam.***  
Contributed to discussions concerning the AI programme, carried out course evaluations, issued opinions and assisted with unresolved issues between students and teachers.
- Board **Stichting Hoormij, *June 2021 – May 2023, Houten.***  
Advisor to the board of Hoormij.NVVS. Primarily focused on tinnitus and innovation within the organization. Discussing current events and planning strategies in monthly board meetings and biannual strategic sessions.
- Secretary **Tinnitus Jong Netwerk, Stichting Hoormij, *January 2021 – April 2022, Houten.***  
Contributed to the establishment of committee for young people with tinnitus.
- Mentor **Stichting Studiezalen, *February 2020 – October 2021, Amsterdam.***  
Mentor and lifecoach for high school student. This involved coaching and homework tutoring.
- Mentor **School's cool, *October 2020 – August 2021, Amsterdam.***  
Personal mentor for primary school student. Focused on transition to high school, language and arithmetic backlogs and home situation.

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## Technology

### Languages

Advanced Python

Basic Rust, C, HTML, CSS, JavaScript

### Tools

Scientific Numpy, Astropy, Pandas, Matplotlib

ML Scikit, PyTorch, TensorFlow, OpenCV, Jax

NoSQL JSON, Firebase (Cloud firestore)

API Flask, Postman

Development Jupyter, GitHub, Git, Linux shell, Docker

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## Languages

Dutch **Native**

English **Professional**