

# Derck Prinzhorn

## Curriculum Vitae

### Profile

MSc AI student with the ambition to innovate society. 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 work as a Machine Learning Architect and Research Intern.

### 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. Won the AmsterdamAI Thesis Award 2023.
- 2014 – 2020 **VWO Gymnasium, N&G en N&T and economics**, *Het Amsterdams Lyceum*.

### Relevant work experience

- Mar. 2024 – **Research Intern**, *Deltares*, Utrecht.  
present Working on conformal prediction for discharge forecasting.
- Jan. 2024 – **Research Intern**, *University of Amsterdam*, Amsterdam.  
present Working on uncertainty quantification.
- 2023 – present **Machine Learning Architect**, *Politie Nederland*, Amsterdam.  
Working on putting Responsible AI into practice using MLOps. This includes components, such as technical tooling (CI/CD), project management, MLOps workflows and governance. Additionally working on developing AI Safety efforts.
- 2022 – 2024 **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

## Honors and awards

- 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.

## 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.
- 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

- Core Team **Google Developer Student Clubs | UvA, *December 2023 – present, Amsterdam*.**
- Core Team **AI Safety Initiative Amsterdam (AISIA), *September 2023 – present, Amsterdam*.**
- Vice Chair **Foundation Dutch Nao Team, *July 2023 – March 2024, 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 Network, 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**