

Derck Prinzhorn

derckprinzhorn@gmail.com | [linkedin.com/derckprinzhorn](https://www.linkedin.com/in/derckprinzhorn)

Education

University of Amsterdam <i>Master of Science in Artificial Intelligence (Grade: 8.0/10)</i>	2023 - 2026 Amsterdam
<ul style="list-style-type: none">• Relevant Coursework: Machine Learning, Deep Learning, Reinforcement Learning, Computer Vision, Natural Language Processing, Information Retrieval, Interpretability & Explainability.	
University of Amsterdam <i>Bachelor of Science in Artificial Intelligence (Grade: 8.2/10)</i>	2020 - 2023 Amsterdam
<ul style="list-style-type: none">• Relevant Coursework: Programming, Linear Algebra, Calculus, Bayesian Statistics, Machine Learning, Reinforcement Learning, Computer Vision, Natural Language Processing, Information Retrieval.	
Het Amsterdams Lyceum <i>VWO Gymnasium</i>	2014 - 2020 Amsterdam

Research experience

Research Intern <i>The Netherlands Cancer Institute</i>	Jul 2024 – present Amsterdam
<ul style="list-style-type: none">• Working on AI for radiotherapy, supervised by Stefanos Achlatis.	
Research Intern <i>Supervised Program for Alignment Research</i>	Jun 2024 – present Remote
<ul style="list-style-type: none">• Working on AI Control research, supervised by Aryan Bhatt.• Supervised by experienced alignment researcher from Redwood Research.	
Research Intern <i>Deltares</i>	Mar 2024 – Jun 2024 Utrecht
<ul style="list-style-type: none">• Researched conformal prediction methods for discharge forecasting, supervised by Jing Deng and Hans Korving.• This involved implementing appropriate methods, evaluating their performance and explaining them to meteorologists.	
Research Intern <i>University of Amsterdam</i>	Jan 2024 – May 2024 Amsterdam
<ul style="list-style-type: none">• Researched uncertainty quantification methods, supervised by Putri van der Linden and Alexander Timans. Specifically, we introduced a novel perspective on conformal prediction for time series.• Submitted findings to COPA, a workshop with a focus on conformal prediction.	

Industry experience

Solution Architect AI <i>Politie Nederland</i>	Apr 2023 – present Utrecht
<ul style="list-style-type: none">• Designing centralized MLOps architecture, consisting of MLOps processes, tooling and workflows, including CI/CD pipelines, and AI governance frameworks.• Introducing AI Safety initiatives through risk modelling and safety engineering.	
Machine Learning Engineer <i>Dutch Nao Team</i>	Sep 2022 – Jan 2024 Amsterdam
<ul style="list-style-type: none">• Developed AI models for pose classification, object detection, sound detection and reinforcement learning, supervised by Arnoud Visser.• Managed team activities, project backlogs and led scrum teams, resulting in 5x more members and a novel robot framework built from scratch in Rust.	
Software Engineer <i>LeerLevels</i>	Oct 2021 – Jan 2023 Amsterdam
<ul style="list-style-type: none">• Developed grading algorithms, search engines, and recommendation systems.• Supervised an app development project, resulting in an MVP mobile app.	

Academic work

Workshop Paper

June 2024

Conformal time series decomposition with component-wise exchangeability

- Accepted to the 13th Symposium on Conformal and Probabilistic Prediction with Applications (COPA 2024) and published in the Proceedings of Machine Learning Research (PMLR 2024).

Journal Paper

June 2024

Reproducibility study of FairAC

- Published in the Transactions on Machine Learning Research (TMLR 2024).

Bachelor Thesis

June 2023

Benchmarking conformal prediction methods for time series regression

Honors and awards

AmsterdamAI Thesis Award Winner

- Awarded for outstanding bachelor thesis on conformal prediction for time series.

Teaching

Information Visualization

Spring 2023

Teaching assistant for BSc course at UvA

Cognitive Modeling (Reinforcement Learning)

Spring 2023

Teaching assistant for BSc course at UvA

Datastructures and Algorithms

Winter 2022

Teaching assistant for BSc course at UvA

Machine Learning Project

Winter 2022

Teaching assistant for BSc course at UvA

Introduction to Machine Learning

Fall 2022

Teaching assistant for BSc course at UvA

Bayesian Statistics for Machine Learning

Fall 2022

Teaching assistant for BSc course at UvA

Projects

AI Safety Hackathon, 2nd place | LLMs, SAEs, TransformerLens

November 2023

- Developed a novel method to inspect, reverse engineering and steer Large Language Models.
- Our team achieved second place out of 8 teams.

Robotics Hackathon ERF2022, 2nd place | Python, ROS2, Robotics

June 2022

- Created software for Lely Juno robot, achieving second place among robotics master students.

Machine Learning Project | Python, Random Forests

January 2022

- Conducted ML project to identify drivers of real estate valuation growth for KR&A.

Volunteering and organizing

AI Safety Amsterdam (AISA)

Sep 2023 – present

Core team

Amsterdam

Google Developer Student Clubs UvA

Dec 2023 – Jun 2024

Core team

Amsterdam

Foundation Dutch Nao Team

Jul 2023 – Mar 2024

Vice chair

Amsterdam

- Refined board processes, managed recruitment, and developed partnerships

Programme Committee AI UvA

Sep 2021 – Apr 2023

Member

Amsterdam

- Contributed to AI program discussions, course evaluations, and resolving student-teacher issues

Stichting Hoormij

Jun 2021 – May 2023

*Board member**Houten*

- Advisor to the board of Hoormij.NVVS
- Focused on tinnitus and innovation strategies within the organization.

Tinnitus Jong Netwerk, Stichting Hoormij

Jan 2021 – Apr 2022

*Secretary**Houten*

- Established a committee for young people with tinnitus.

Stichting Studiezalen

Feb 2020 – Oct 2021

*Mentor**Amsterdam*

- Mentored high school students in coaching and homework tutoring.

School's cool

Oct 2020 – Aug 2021

*Mentor**Amsterdam*

- Mentored primary school students during their transition to high school, while managing language and arithmetic backlogs and home situation.

Skills

Languages: Dutch (Native), English (Professional)**Programming Languages:** Advanced - Python; Basic - Rust, C++, HTML, CSS, JavaScript**Data Science and Machine Learning:** Scientific Libraries - Numpy, Pandas, Scipy, Matplotlib, Astropy; ML Frameworks - Scikit-learn, PyTorch, TensorFlow, OpenCV, Jax, Statsforecast**Databases:** SQL - PostgreSQL, MySQL, SQLite; NoSQL - JSON, Firebase (Cloud Firestore); Graph - Neo4j**Development and API Tools:** API Development - Flask, Fastapi, Postman; Development Tools - Jupyter, GitHub, Git, Bash shell, Docker, Kubernetes**MLOps:** Experiment Tracking - MLflow, Weights & Biases, Neptune; Orchestration - Metaflow, Kubeflow, Airflow