Derck Prinzhorn

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Profile

MSc Artificial Intelligence student at the University of Amsterdam with a strong technical background and over two years of work experience in AI architecture, machine learning engineering, and AI security. Founder of Wisr, an education technology start-up, and Prinzhorn Solutions, where I work as a freelance AI consultant supporting organizations with research, engineering, and secure AI system design. Involved in both research and industry projects, with outcomes including academic publications. Currently preparing for my MSc thesis.

Education

University of Amsterdam 2023 - 2026
Master of Science in Artificial Intelligence (Grade: 7.7/10, US: A) *Amsterdam*

- **Relevant Coursework:** Machine Learning, Deep Learning, Reinforcement Learning, Computer Vision, Natural Language Processing, Information Retrieval, Interpretability & Explainability.

University of Amsterdam 2020 - 2023
Bachelor of Science in Artificial Intelligence (Grade: 8.2/10, US: A) *Amsterdam*

- **Relevant Coursework:** Programming, Linear Algebra, Calculus, Bayesian Statistics, Machine Learning, Reinforcement Learning, Computer Vision, Natural Language Processing, Information Retrieval.

Het Amsterdams Lyceum 2014 - 2020
VWO Gymnasium *Amsterdam*

Industry experience

Founder Apr 2025 – present
Prinzhorn Solutions *Amsterdam*

- Supporting organizations in building scalable, effective, and secure AI systems.
- Providing services in AI solution architecture, ML engineering, research, and AI strategy.

Co-Founder Sep 2024 – present
Wisr *Amsterdam*

- Building Wisr, an AI-driven platform that helps teachers save time and improve efficiency through automated grading and feedback tools.

AI Architect Apr 2023 – Apr 2025
Politie Nederland *Utrecht*

- Defined and developed reference architectures for AI, MLOps, and AI security, aligned with industry best practices.
- Applied TOGAF and SAFe frameworks to guide architecture design and implementation.

Teaching Assistant Sep 2022 – Sep 2023
University of Amsterdam *Amsterdam*

- Assisted teaching in multiple BSc AI courses, including Machine Learning, Reinforcement Learning, Information Visualization, Bayesian Statistics, and Data Structures & Algorithms.

Software Engineer Oct 2021 – Jan 2023
LeerLevels *Amsterdam*

- Developed grading algorithms, search engines, and recommendation systems.

Research experience

Research Intern Oct 2024 – Feb 2025
The Netherlands Cancer Institute *Amsterdam*

- Explored the use of 3D diffusion models applied to CT scan data to enhance radiotherapy treatment planning, supervised by Stefanos Achlatis.

Research Intern Oct 2024 – Feb 2025
University of Amsterdam *Amsterdam*

- Worked on a benchmark that evaluates video generation models on physical reasoning. Paper is under review at ICLR.

Research Intern Jul 2024 – Oct 2024
Supervised Program for Alignment Research (SPAR) *Remote*

- Studied AI control and safety with Aryan Bhatt (Redwood Research), focusing on suspicious output detection, backdoor defense via red-/blue-teaming, and efficient prompting.

Research Intern Mar 2024 – Jun 2024
Deltares *Utrecht*

- Researched and implemented conformal prediction for discharge forecasting, supervised by Jing Deng and Hans Korving, and presented results to meteorologists.

Research Intern Jan 2024 – May 2024
University of Amsterdam *Amsterdam*

- Researched uncertainty quantification under Putri van der Linden and Alexander Timans, introducing a new perspective on conformal prediction for time series.
- Published in PMLR and presented at the COPA conference.

Academic work

HIVE: A Hyperbolic Interactive Visualization Explorer for Representation Learning July 2025
ICCV Workshop

- Accepted at the Beyond Euclidean Workshop.

Morpheus: Benchmarking Physical Reasoning of Video Generative Models Sep 2025
ICLR 2026

- Under review

Conformal time series decomposition with component-wise exchangeability June 2024
COPA & PMLR

- 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).

Reproducibility study of FairAC June 2024
TMLR & NeurIPS Poster

- Published in the Transactions on Machine Learning Research (TMLR 2024) and accepted to the Machine Learning Reproduction Challenge (MLRC2023).
- Presenting as a poster at the Neural Information Processing Systems (NeurIPS) 2024 conference.

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.

Volunteering and organizing

Stichting Protocol Hoorhulpmiddelen May 2025 – present
Member of the Quality Council *Houten*

- Advise the board on requirements for the national Hearing Aid Protocol, ensuring feasibility and alignment with stakeholder needs.
- Represent perspectives of diverse stakeholder groups to strengthen quality standards in hearing care.

Stichting Hoormij Mar 2025 – present
Board advisor *Houten*

- Focusing on implementing innovations in way of working, brand, offerings and use of technology.

Forward Incubator Dec 2024 – May 2025
Startup Consultant *Amsterdam*

- Forward·Inc is an Amsterdam-based, internationally operating organization devoted to supporting newcomers in pursuing their entrepreneurial ambitions.
- As a consultant, I support the participating entrepreneur during the incubator program.

AI Safety Amsterdam (AISA) Sep 2023 – May 2025
Member *Amsterdam*

Foundation Dutch Nao Team Jul 2023 – Mar 2024
Vice chair *Amsterdam*

- Refined board processes, managed recruitment, and developed partnerships

Foundation Dutch Nao Team Sep 2022 – Jan 2024
Machine Learning Engineer *Amsterdam*

- 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.

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 Advisor *Houten*

- 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: Python
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