ROBERT VAN DER KLIS

MSc in Artificial Intelligence & Bioinformatics

@ rvander@ethz.ch   📍 Zürich, Schweiz   in robertdvdk   ⓞ robertdvdk

RESEARCH SUMMARY

I have published multiple first-author papers in the intersection of computer vision and deep learning. My MSc thesis at the University of Amsterdam was on deep learning in hyperbolic geometry, currently under review at a top-tier conference. I also have experience with foundation models, which I'm currently working on in my research internship in the BoevaLab at ETH Zurich.

EDUCATION

M.Sc. in Artificial Intelligence
University of Amsterdam

📅 Sept 2023 – July 2025   📍 Amsterdam

- **GPA: 8.8/10. Graduated cum laude.**
- Graduated with honours in the ELLIS Amsterdam MSc Honours Programme.
- Thesis: "On the Inability of Lorentz Layers to Embed Hierarchies: Steps Towards a Geometry-Aware Solution" (Grade: 8.5/10).

M.Sc. in Bioinformatics
Wageningen University & Research

📅 Feb 2021 – June 2025   📍 Wageningen

- **GPA: 8.8/10.** Specialised in Machine Learning for Bioinformatics.
- Thesis: "An exploration of possible deep learning methods to model the relation between promoters and proteins" (Grade: 8.5/10).
- Supplemented bioinformatics degree with 90 ECTS in mathematics and computer science at Utrecht University, including courses in algorithms, data structures, and mathematical foundations. GPA: 8.94/10.

B.Sc. in Animal Sciences
Wageningen University & Research

📅 Sept 2016 – Feb 2021   📍 Wageningen

- Foundation in biological sciences with focus on molecular biology and genetics.

RESEARCH EXPERIENCE

Scientific Assistant
ETH Zürich, BoevaLab (Prof. Valentina Boeva)

📅 Aug 2025 – Present   📍 Zürich

- Developing and evaluating foundation models for single-cell transcriptomics applied to cancer biology.
- Investigating the alignment between pretraining objectives (masked language modeling) and downstream task performance in single-cell models.

AI Research Intern
UMR TETIS Montpellier, EVERGREEN (Dr. Diego Marcos)

📅 Dec 2022 – Apr 2023   📍 Montpellier, France

- Worked in an interdisciplinary team of computer vision and remote sensing specialists to develop a CNN-based method for part detection without requiring segmentation masks.

- Result: First-author paper published at ICCV 2023 (main track).

PUBLICATIONS

Conference Proceedings

- **First author**. "PDiscoNet: Semantically consistent part discovery for fine-grained recognition." *International Conference on Computer Vision (ICCV)*, 2023.
- **First author**. "NARAIM: Native Aspect Ratio Autoregressive Image Models." *NeurIPS Workshop on Self-Supervised Learning*, 2024.

Journal Articles

- **First author**. "Reproducibility study of LICO: Explainable Models with Language-Image Consistency." *Transactions on Machine Learning Research (TMLR)*, 2024.

Preprints

- **First author**. "Fast and Geometrically Grounded Lorentz Neural Networks". *arXiv*, 2026.

TEACHING EXPERIENCE

Teaching Assistant
Universities of Amsterdam
📅 Sept 2024 – Dec 2024   📍 Amsterdam

- Bayesian Statistics for Machine Learning. 10 hours per week.
- Leren (Introduction to Machine Learning). 10 hours per week.
- Responsibilities: Leading tutorial sessions (20 students), grading assignments, office hours

Teaching Assistant
Wageningen University & Research
📅 Nov 2020 – Jun 2022   📍 Wageningen

- Courses: Algorithms in Bioinformatics, Mathematics 2, Immunology and Thermoregulation
- Responsibilities: Tutorial sessions, assignment grading, exam preparation

EXTRACURRICULARS

Organizer
Student Reading Group, University of Amsterdam
📅 Sept 2023 – June 2025   📍 Amsterdam

- Founded and organized a weekly reading group of 15 MSc AI students to discuss landmark papers in machine learning and AI.

AI Safety Fundamentals: Alignment Course
Bluedot Impact
📅 Mar 2024 – June 2024   📍 Online

- Completed intensive course on AI alignment covering RLHF, mechanistic interpretability, and AI safety research

Student Board Member
Study Association "de Veetelers"
📅 Oct 2019 – Oct 2020   📍 Wageningen

- Managed sponsor relations and organized academic and social events
- Coordinated with faculty and student body to improve program quality