# Alexander Timans

Email: a.r.timans@uva.nl Website: alextimans.github.io

Current location: Amsterdam, Netherlands

### **EDUCATION**

PhD candidate Oct 2022 – ongoing

Amsterdam Machine Learning Lab, University of Amsterdam

Supervision: Eric Nalisnick & Christian Naesseth, in co-op. with the Bosch Center for AI.

Topic: Uncertainty Quantification for Structured Objects.

M.Sc. Statistics Sep 2020 – Sep 2022

ETH Zurich

Grade:  $\varnothing$  5.5/6 (6 highest, 1 lowest)

Thesis Topic: Uncertainty Quantification for Image-based Traffic Prediction.

Key courses: Bayesian Statistics, Probabilistic AI, Deep Learning

# B.Sc. Industrial Engineering and Management

Oct 2015 - Mar 2019

Karlsruhe Institute of Technology (KIT) Grade: Ø 1.5/5 (1 highest, Top 10%)

Thesis Topic: Forecasting the U.S. Stock Market Illiquidity using Machine Learning Techniques.

Key courses: Statistics, Operations Research, Advanced Programming

## **PUBLICATIONS**

A. Timans, C.-N. Straehle, K. Sakmann, C. A. Naesseth, E. Nalisnick.

Max-Rank: Efficient Multiple Testing for Conformal Prediction [Link].

In Proceedings of the Int'l Conference on Artificial Intelligence and Statistics (AISTATS), 2025.

M. Jazbec\*, A. Timans\*, T. H. Veljković, K. Sakmann, D. Zhang, C. A. Naesseth, E. Nalisnick.

Fast yet Safe: Early-Exiting with Risk Control [Link].

In Advances in Neural Information Processing Systems (NeurIPS), 2024.

A. Timans, C.-N. Straehle, K. Sakmann, E. Nalisnick.

Adaptive Bounding Box Uncertainties via Two-Step Conformal Prediction [Link].

In Proceedings of the European Conference on Computer Vision (ECCV), 2024. Oral paper (Top 3%).

D. W. E. Prinzhorn, T. Nijdam, P. A. van der Linden, A. Timans.

Conformal time series decomposition with component-wise exchangeability [Link].

In the Symposium on Conformal and Probabilistic Prediction with Applications (PMLR), 2024.

### OTHER RESEARCH PROJECTS

A. Timans\*, R. Verma\*, E. Nalisnick, C. A. Naesseth.

On Continuous Monitoring of Risk Violations under Unknown Shift.

Preprint (in submission), 2025.

P. A. van der Linden, A. Timans, E. J. Bekkers.

CP<sup>2</sup>: Leveraging Geometry for Conformal Prediction via Canonicalization.

Preprint (in submission), 2025.

A. Timans, N. Wiedemann, N. Kumar, Y. Hong, M. Raubal.

Uncertainty Quantification for Image-based Traffic Prediction across Cities [Link].

Master Thesis, 2023.

D. Kamm, N. Muntwyler, A. Timans, M. Vandenhirtz (alphabetical order).

Fake image detectors are worse than you think [Link].

Course Project, 2021.

### **EMPLOYMENT**

Research Intern Jan 2024 – Apr 2024

RIKEN Center for Advanced Intelligence Project, Tokyo

Exploring Variational Learning for pruning, with the Approximate Bayesian Inference Team.

# Data Analysis & Media Intern

Jul 2019 – Oct 2019

Applico Inc, New York City

I helped improve the Salesforce database quality and ran communication for a newly launched campaign.

## Project Management Intern

Apr 2019 – Jun 2019

AT Consult, New York City

I supported foreign direct investment clients with market research, lead identification and outreach.

Research Assistant Jun 2017 – Oct 2018

KIT Chair of Statistics, Karlsruhe

I assisted with developing exercise and lecture materials, research data collection, and student assistance.

Data Science Intern Sep 2017 – Dec 2017

Global Market Solutions & Commerzbank, Frankfurt am Main

I implemented a python prototype to compute risk measures following new regulations (MiFID II).

## Financial Consulting Trainee

Oct 2016 - Mar 2017

Tecis Financial Services, Karlsruhe

I worked on the side in financial consulting, sales and prospect generation.

### COMMUNITY SERVICES

**Reviewing** Transactions of Machine Learning Research 2025

Int'l Conference on Machine Learning 2025

Int'l Conference on Artificial Intelligence and Statistics 2025

Int'l Conference on Learning Representations 2025

Conference on Neural Information Processing Systems 2024 (Top Reviewer), 2025

Int'l Conference on Computer Vision 2023

Supervision Master Thesis, Alejandro Monroy Muñoz, 2025

Master Thesis, Dominykas Šeputis, 2025 Master Thesis, Jesse Brouwers, 2025

Bachelor Thesis, Derck Prinzhorn, 2023 (AI Thesis Award)

**Teaching** Project AI, Master course @ University of Amsterdam, 2024

Human-in-the-Loop ML, Master course @ University of Amsterdam, 2023 Introduction to ML, Bachelor course @ University of Amsterdam, 2023 Deep Learning II, Master course @ University of Amsterdam, 2023

ANOVA, Master course @ ETH Zurich, 2021 Econometrics, Bachelor course @ KIT, 2017

# OTHER

Honors: ELLIS PhD Track, 'Deutschlandstipendium' Scholarships 2017 & 2018.

Spoken Languages: English, German, French, Russian.

Coding Languages: Python (incl. PyTorch, Scikit, Numpy, Scipy, Pandas, OpenCV), R, Java, HTML. Past engagements: Model UN, Debating & Finance Societies, Student Council, Social Entrepreneurship.