Philipp Nazari

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Education

PhD **ETH Zurich/MPI CLS**, Computer Science — July 2025 – May 2028

- CLS PhD fellow, advised by Konstantin Rusch (MPI CLS) and Prof. Dr. Fanny Yang (ETH Zurich)

MsC **ETH Zurich**, Mathematics — Sept 2023 – May 2025

- Focus Areas: Machine Learning, Data Science
- Thesis: *The Geometry of Generalization*

BsC **Ruprecht-Karls-University Heidelberg**, Mathematics — Oct 2019 – July 2023

- GPA: 1.3 (German grading system)
- Focus areas: Differential Geometry, Analysis, Machine Learning

University of Bergen, Mathematics — Aug 2021 – Jan 2022

- Exchange Semester at the University of Bergen, Norway
- Focus Areas: Algebraic Topology, Differential Geometry

BsC **Ruprecht-Karls-University Heidelberg**, Physics — Oct 2019 – Aug 2022

- GPA: 1.3 (German grading system)
- Focus areas: Theoretical Physics, Machine Learning

Experience

Heidelberg Collaboratory for Image Processing (HCI), Research Assistant — Heidelberg, Germany, Aug 2022 – Mar 2023

Publications

Geometric Autoencoders – What You See is What You Decode — July 2023

Philipp Nazari, Sebastian Damrich, Fred Hamprecht

proceedings.mlr.press/v202/nazari23a.html (International Conference on Machine Learning 2023)

Research Projects

Geometric Encoder Regularization in Autoencoders — Juli 2024

- Semester Project at ETH with Prof. Thomas Hofmann. Paper and code

Entropy Aware Message Passing in Graph Neural Networks — Mai 2024

- Project spun out of the Deep Learning course at ETH by Prof. Thomas Hofmann. Paper and code

Talks

Guest Lecturer — November 2024

- Guest lecturer for the course "Machine Learning and Physics" by Prof. Dr. Fred Hamprecht at the university of Heidelberg: "An Introduction to Autoencoders and (Geometric) Regularization Techniques"