

WHO AM I?

I am a final-year PhD student at ETH Zurich supervised by Roger Wattenhofer. Interested in human evaluation of AI-generated images and text, and human-aligned compression.

EDUCATION

- 2023 - pres. **PhD in Representation Learning** **ETH Zürich**
Image compression, image quality assessment, and multimodal machine learning. Supervising 30 BSc and MSc Thesis. Hands on Deep Learning course coordinator
- 2021 - 2023 **MSc in Mathematical Modelling and Computation** **Technical University of Denmark**
Advanced Machine Learning, Deep Learning, Deep Learning in Image Analysis, Advanced Image Analysis, Bayesian Machine Learning, Signal Processing *GPA:5.73/6*
- 2022 **Study abroad** **ETH Zürich**
Computer Vision Lab: research project in open vocabulary object detection with multi modal machine learning, Seminar in Deep Neural Networks *GPA:5.71/6*
- 2016 - 2020 **BSc in Finance Mathematics and Economics** **Corvinus University of Budapest**
Calculus, Probability theory, Linear Algebra, Statistics, Finance, Modelling, Programming, Microeconomics, Macroeconomics, Game Theory, Negotiation Techniques, etc. *GPA:5.57/6*

EXPERIENCE

- 2020 - 2023 **Computer vision research assistant** **PufinID**
part time Applying contrastive metric learning models for pattern recognition. Building image capturing quality control system. Using latent-diffusion models for synthetic data generation.
- 2020 **Quantitative model developer** **Morgan Stanley**
Continuing the internship project, by exploring performance with market frictions, especially looking at model robustness of moving from synthetic training data to real testing data.
- 2019 - 2020 **Quantitative modelling intern** **Morgan Stanley**
part time Researching reinforcement learning models like Q-learning, DQN, A2C, PPO, DDPG for option hedging.

SELECTED PUBLICATIONS

- Shakir Yousefi, Andreas Plesner, Till Aczel, Roger Wattenhofer (2025). "Mind the Gap: Removing the Discretization Gap in Differentiable Logic Gate Networks" NeurIPS 2025
- Till Aczel, Roger Wattenhofer (2024). "Conditional Hallucinations for Image Compression" Data Compression Conference 2025
- Till Aczel, Roger Wattenhofer (2025). "The Unwinnable Arms Race of AI Image Detection" Workshop on What Makes a Good Video: Next Practices in Video Generation and Evaluation (NextVid @ NeurIPS 2025)
- Till Aczel, Roger Wattenhofer (2023). "Efficient Multimodal Alignment: To Freeze or Not to Freeze?" Workshop on Unifying Representations in Neural Models (UniReps @ NeurIPS 2023)
- Samuel Räber, Andreas Plesner, Till Aczel, Roger Wattenhofer (2025). "Human Aligned Compression for Robust Models" Workshop on Adversarial Machine Learning on Computer Vision: Foundation Models + X (AdvML @ CVPR 2025)