Eric Tillmann Bill

+49-178-4593292 | erbill@ethz.ch | linkedin.com/in/ericbill21 | ericbill.me

EDUCATION

ETH Zürich

MSc Computer Science — *2023–present*

- *GPA*: 5.5/6; graduating in May, 2026.
- *Major*: Machine Intelligence, *Minor*: Data Management.
- *Teaching assistant*: Algorithms Lab (2024, 2025).

RWTH Aachen University

BSc Computer Science — *2019–2023*

- *GPA*: 1.3/5.0 with 3× Dean's List Appearances (Top 5%).
- *Thesis*: *On the Equivalence of Graph Neural Networks and the Weisfeiler–Leman Algorithm* (Report).
- *Exchange Semester*: ETH Zurich, Computer Science 2022; received full-time M.Sc. offer thereafter.
- *Teaching assistant*: Discrete Mathematics (2020), Formal Systems (2021), Java Intro. (2020, 2021).

UNITECH International Society

Extracurricular Program — *2022–2023*

- *Goal*: Selected for the UNITECH leadership program; completed three experiential weeks, mentoring, academic exchange, and a global corporate internship.

RESEARCH PUBLICATIONS

Exploring Magnitude Preservation and Rotation Modulation — *2024–2025*

- **NeurIPS 2025** Workshop on Optimization for Machine Learning (Paper).
- Apply magnitude-preserving updates to DiT, yielding faster convergence and higher sample quality; explore a new conditioning-modulation method; reducing FID scores by ~ 12.8%.

Test-Time Disentanglement of Diffusion Models — *2025*

- **ICML 2025** Test-Time Adaptation Workshop (Paper).
- A model-agnostic method to enhance subject separation and compositional alignment in text-to-image diffusion models via a Jensen–Shannon divergence at test time.

A Principled Route to Multi-Subject Fidelity — *2025–present*

- Pre-print published on arXiv (Paper).
- Propose a control-theoretic framework for multi-subject fidelity in text-to-image models; introduce a lightweight test-time controller and a fine-tuning recipe that achieve state-of-the-art fidelity.

EXPERIENCE

Intern at Evonik, Singapore — *2024*

- Designed and validated a generative model to predict on-site safety-incident risk.
- Co-filed an international patent with 1/3 ownership (application pending).

Intern at Mercedes-Benz, Stuttgart — *2022*

- Built a reinforcement-learning scheduler for body-in-white production in a modular assembly setting. Published results at CIRP ICME 2024 (Proceedings).

TECHNICAL SKILLS & HONORS

Programming	Python, Java, C++, Latex, Haskell, HTML5, SQL
ML/AI	PyTorch, TensorFlow, Keras, Diffusion, Flow Matching, LoRA, Transformers
Tools	Docker, SLURM, Accelerate, Git, Jupyter, MongoDB, SQL, Hugo
Honors	Siemens AI DA Winner, i5 Best Seminar Paper Award, Porsche IT Scholarship