

# Dorian Przetakiewicz

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## § 01 - PROFILE

I build agentic AI systems end to end. My private platform *contentgen* turns one line of intent into published social-media content: a Go/Echo checkpoint-graph pipeline engine, FastAPI model registry with credit metering, Remotion render service, LoRA character-lab on Modal A100s, and a React/TS studio on top. At DLR I brought CNN inference onto homomorphically encrypted images for the LYNX toolkit. Physics MSc in parallel; looking for work in agentic engineering.

## § 02 - EXPERIENCE

**AI Security Engineer, Working Student** 11.2024 – 10.2025  
Deutsches Zentrum für Luft- und Raumfahrt (DLR) • privacy-preserving ML for the LYNX toolkit

- Secure MPC pipelines (MP-SPDZ, MPyC) and homomorphic-encryption inference plumbing, Python/Flask backend, React/TS frontend.
- Fine-tuned CNNs for human detection on *homomorphically encrypted* images with TenSEAL; co-authored the SPIE paper [1].

**Student Assistant** 05.2024 – 07.2024  
RWTH Aachen, Institute for Theoretical Physics • Ran Ising Monte-Carlo simulations on RWTH's Linux HPC clusters and built the Python analysis pipeline for boundary OPE coefficients [2].

*Prior:* Paid Laboratory Intern, Uniklinik Köln — 11.2020 – 02.2021.

## § 03 - PROJECTS

**contentgen — agentic content platform** 2024 – present  
private, live demo on request • Go/Echo, FastAPI, Modal, Remotion, React/TS

- Multi-user with credits metered against real model pricing (OpenRouter, Runware, Vertex AI, Suno).
- Checkpoint-graph pipeline engine — any node in a generation run can be resumed, retried, or diffed; LoRA character-lab on Modal A100s keeps characters consistent across providers.

**Lifestory.ai HACKATHON** 2025/26  
Runway API Hackathon • [github.com/spyder73/runwayml-directorAI](https://github.com/spyder73/runwayml-directorAI) • LLM → Runway → Remotion film pipeline — LLM breaks a life story into scenes, Runway generates images/video/TTS, Remotion assembles the film, and a live AI-director character narrates.

**funder-quest HACKATHON** 2024  
ETHGlobal Brussels 2024 • [github.com/funder-quest/ethglobal-brussels-24](https://github.com/funder-quest/ethglobal-brussels-24) • Ethereum dApp on Scaffold-ETH 2 (Next.js, Wagmi, Hardhat, TS) — the hackathon that pulled me from physics into web development.

## § 04 - EDUCATION

**M.Sc. Physics** 10.2024 – 08.2027 (expected)  
RWTH Aachen • theoretical statistical physics & quantum tech.

**Erasmus — Jagiellonian University, Kraków** 10.2025 – 09.2026  
focus on deep learning and software engineering.

**B.Sc. Physics** 11.2020 – 04.2024  
RWTH Aachen • thesis “Field Theory Coefficients for Ising Surface Criticality”, graded 1.0.

*Prior:* Abitur, Liebfrauenschule Köln — 2012 – 2020, grade 1.7.

## § 05 - PUBLICATIONS

[1] LYNX: Privacy-centric digital surveillance through homomorphic encryption and deep learning  
*Proc. SPIE 13606, 136060W (2025)* <https://doi.org/10.1117/12.3065604>

[2] Boundary operator product expansion coefficients of the three-dimensional Ising universality class (first author)  
*Phys. Rev. Research 7 (2025)* <https://doi.org/10.1103/qkq6-b6hx>

## § 06 - STACK

### LANGUAGES

Python ●●●●●  
LaTeX ●●●●●  
TypeScript ●●●●○  
Go ●●●●○  
C++ ●●●●○

### ML / AI

PyTorch, TenSEAL, LLM pipelines (OpenRouter), image & video generation APIs, LoRA training on Modal.

### SYSTEMS

Docker, FastAPI, Flask, Go/Echo, Linux HPC clusters.

### FRONTEND

React.

### PLAYED WITH

SQL, PostgreSQL, Flutter.

## § 07 - SPOKEN

German ●●●●●  
Polish ●●●●●  
English ●●●●●  
Russian ●●○○○  
Ukrainian ●●○○○  
Chinese ●○○○○

CEFR: DE/PL native, EN C2, RU/UA A2, ZH A1.

more — live demos, papers, write-ups: [przetakiewicz.de](https://przetakiewicz.de)

$$H = -J \sum_{\langle ij \rangle} \sigma_i \sigma_j$$