YANNIK HESSE

M. Sc. RWTH

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EDUCATION

2022 – 2025 **Computer Science M.Sc.** — **RWTH Aachen University, Aachen**
Final Grade · 1,2 (A) (summa cum laude)
Intensified courses: *Deep Learning / Reinforcment Learning*

2023 – 2024 **Computer Science M.Sc.** — **ETH, Zürich**
UNITECH Exchange Semester
Courses: *Computer Vision, Deep Learning, Planning for Autonomous Robots*

2019 – 2022 **Computer Science B.Sc.** — **RWTH Aachen University, Aachen**
Final Grade · 1,4 (A-) (very good)
Intensified courses: *Mathematics*

2016 – 2019 **German Abitur** — **Ostendorf-Gymnasium Europaschule, Lippstadt**
Final Grade · 1,4 (A-) very good
Intensified courses: *Math and Computer Science*

2015 – 2016 **10th Grade (Year Abroad)** — **Stevenson High School, Livonia Michigan (USA)**

EXPERIENCE

2025 – 2026 (full-time) **Researcher** — **i6 - Machine Learning Lab - RWTH Aachen University**
Publishing my master's thesis and researching how classical planning integrates with deep reinforcement learning. Created new tree-based training algorithms using PyTorch and Slurm.

2024 – 2024 (internship) **Data Engineer** — **Infineon, Singapore**
Developed deep learning models to enhance auditing efficiency, leveraging NLP and computer vision techniques. Integrated tools like LangChain (RAG), LLaMA, Hugging Face, and PyTorch to automate and optimize audit processes

2022 – 2023 (part time) **Software Engineer** — **dco/c++**
Building on my bachelor thesis I worked as a C++ developer together with Prof. Dr. rer. nat. Uwe Naumann on the algorithmic differentiation tool dco/c++.

2020 – 2022 (part time) **Student Assistant** — **RWTH Aachen University**
Working as a teaching assistant for the university courses *Programming*, *Data-Communication and Security*

PERSONAL PROJECTS

2025 **puffer.ai** — **Open Source Contribution**
Contributed to the open-source, high-performance reinforcement learning library PufferLib by developing novel, high-speed environments such as 2048 and implementing algorithms using C and PyTorch.

2022 **Adjoint Algorithmic Differentiation tool** — **Bachelor's Thesis**
A fully functional - open-source - AD-tool created for testing and timing of my thesis [C++ / Cmake]

2018 – 2020 (discontinued) **Startup** — **stream.kiwi**
A video hosting platform. Included a distributed file system, a custom content delivery network (CDN), and a video player. [Nodejs / ffmpeg / VueJS / Docker / Cloud]

LANGUAGES

German - native
English - C1 (lived in the United States for four years)

WHO AM I?

I am a computer scientist and software engineer with a passion for distributed systems, deep learning, and algorithmic optimization.

AWARDS

2025 - **Porsche IT Stipend**
2024 - **DeansList** - top 5%
2023 - **DeansList** - top 5%
2022 - **DeansList** - top 5%