Jan Thomas Müller

AI Research Engineer

mail@jantmueller.com jantmueller.com
Germany linkedin.com/in/jantmueller github.com/janthmueller

SUMMARY

Gained over 4 years of diverse experience in AI, blending academic research with practical industry applications in computer vision, data processing, and classical machine learning. Highlights include developing efficient neural network compression techniques and implementing AI solutions for anomaly detection and smart camera systems.

EXPERIENCE

2023 – Now

- **Research Associate**

Hochschule Hannover – University of Applied Sciences and Arts
Skills: Python · Machine Learning · Computer Vision · Research · PyTorch

- Enhanced foundational research of real-time multi-object tracking algorithms for smart cameras utilizing advanced computer vision AI models.
- Led the development of neural network compression techniques, achieving up to 70% parameter reduction without loss of accuracy.

2020 – 2022

- **Research Assistant**

Institute of Production Engineering and Machine Tools – Hannover
Skills: Python · Data Analysis · Machine Learning · TensorFlow

- Conducted extensive data analysis of machine data in time series format to support anomaly detection and predictive maintenance applications.
- Developed and fine-tuned machine learning models for anomaly detection, optimizing the performance of industrial systems.

EDUCATION

2020 – 2023

- **Master of Science in Applied Computer Science**

Hochschule Hannover – University of Applied Sciences and Arts
Specializations: Data Science · Complex Software Systems

- Master thesis on anomaly detection in time series using convolutional autoencoders and image transformations to optimize detection methods.
- Completed various projects, including test-driven development in Java, a game with procedural terrains in C#, and meshing algorithms in C++.

2016 – 2020

- **Bachelor of Science in Applied Mathematics**

Hochschule Hannover – University of Applied Sciences and Arts
Specializations: Technological Mathematics

- Developed AI models for Optical Music Recognition in my thesis, enabling accurate transcription of sheet music into digital notation.
- Extended the thesis in the Soundbird project to include Automatic Music Transcription; nominated for the "Startup-Impuls" competition.

SKILLS

- **Programming Languages:** Python, C++, C#, Java
- **Machine Learning Frameworks:** PyTorch, TensorFlow, Scikit-learn
- **Tools and Platforms:** Docker, Git, LaTeX, Visual Studio Code
- **Mathematical Skills:** Time series analysis, optimization, statistical modeling