



Jann Aschersleben

Researcher & Data Scientist

As an experienced physicist and PhD student focusing on the application of artificial neural networks on astrophysical data, I possess a unique blend of advanced analytics, machine learning proficiency, and interdisciplinary collaboration skills. My experience spans working with diverse, international teams, showcasing my ability to adapt and innovate in dynamic environments. Highly skilled in Python, I am eager to apply my analytical and technical expertise to address complex challenges and drive innovation in a variety of industries.

Work Experience

2020-2024

University of Groningen, Groningen, The Netherlands

PhD Researcher in Physics

- Developing and applying machine learning algorithms on astrophysical data
- Demonstrating capability in handling large datasets from observations and simulations
- Employed Python and C/C++ for data processing and analysis
- Visualising data for interpretation, understanding and decision support
- Proven ability to tackle complex challenges, demonstrating a problem-solving skill set
- Collaborating across different domains with diverse teams and mentoring students

2017-2019

Fraunhofer Institute for User Technology ILT, Aachen, Germany

Research Assistant

- Adaption of experimental setups for given tasks
- Conducting experiments in the field of laser physics
- Analysis of measured data with Python
- Programmatic implementation of models from physical and technical literature

Education

2018-2020

RWTH Aachen University, Aachen, Germany

Master of Science in Physics

2014-2018

RWTH Aachen University, Aachen, Germany

Bachelor of Science in Physics

Portfolio

PSNet

A convolutional neural networks for the analysis of astronomical data
Programming tools: Python, C

DAMSPI

A framework to analyse and visualise data from large astronomical simulations
Programming tools: Python

CheckmAIte

A chess engine based on a convolutional neural network and multiprocessing
Programming tools: Python

Daily Paper

A tool to search online for scientific articles based on the user's keywords
Programming tools: Python

Scholarships

PhD Scholarship Programme

Awarded a PhD scholarship via a competitive process, evaluated by top physics and astronomy experts.

Volunteer Work

2021-2022

President of Young Minds Groningen

2022-2024

Coordinator of Machine Learning Journal Club

General

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Skills

Programming Languages

Proficient with:

Python, bash

Comfortable or Familiar with:

C / C++, SQL, MATLAB, HTML & CSS

Machine Learning

Artificial Neural Networks, Boosted Decision Trees, Random Forest, Support Vector Machines, Linear Regression, Tensorflow, Keras, Scikit-learn

Data Science / Visualisation

NumPy, Pandas, Scipy, PySpark, Matplotlib

High-Performance Computing

Parallel Processing, Remote Job Submission, GPU Acceleration

Operating Systems

macOS, Linux, Windows

Miscellaneous

Git / GitLab, Jupyter Notebook, LaTex, Microsoft Office

Languages

- English (Proficient)
- German (Mother tongue)
- Dutch (Basic)
- French (Basic)

Reference

Prof. dr. Manuela Vecchi
University of Groningen
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