

JOHANNES WILHELM

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RESEARCH INTERESTS

I am interested in machine learning, with a focus on time-series analysis and predictive modeling of financial markets. Additionally, I maintain parallel interests in computational neuroscience and computer vision.

EDUCATION

RWTH Aachen University	04/2019 - today
M.Sc. Computer Science	expected 09/2025
B.Sc. Computer Science, German GPA: 1.5/1.0 - top 10%	09/2022
Gymnasium Stolzenau	08/2010 - 07/2018
Abitur (German university entry qualification)	07/2018
with honors in physics for outstanding performance	

WORK EXPERIENCE

IRTG Modern Inverse Problems & Forschungszentrum Jülich	12/2023 - 10/2024
<i>Student Research Assistant</i>	<i>Aachen, GER</i>
<ul style="list-style-type: none">Improved the runner of L2L - a framework for gradient-free optimization, enhancing parallel execution efficiency of large-scale simulationsCollaborated with researchers to enhance performance of spiking neural network models in NEST SimulatorHigh-performance computing at Jülich Supercomputing Center	
Postera Capital	05/2021 - 12/2021
<i>Quantitative Research Analyst</i>	<i>Düsseldorf, GER</i>
<ul style="list-style-type: none">Developed a predictive pricing model for cryptocurrency assets using neural networks in (TensorFlow) PythonBuilt an end-to-end pipeline for data aggregation, statistical analysis and feature engineering.Designed and trained LSTM-based models for improved time-series forecasting	

SELECT TECHNICAL SKILLS

Programming Languages	Python, C/C++, C#, Java, Dart
Tools & Frameworks	PyTorch, Tensorflow, scikit-learn, NetworkX & GNNs, OpenCV Git, Unix/Bash
Other	Unity, GPU-/shader programming, L ^A T _E X, SQL