


Magnus Petersen


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Frankfurt am Main, Germany

Work Experience & Internships

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XX.XX.2021-
- **Research Intern FIAS**
Implementing machine learning models for latent variable finding like VAEs, AEs and LOca in PyTorch
01.04.2020-01.08.2020

Publications

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Projects

- **Company ESG Score Prediction**
Predicting companies environment, social and governance score based on news articles about said companies using S-BERT's zero shot multi label classification.
Python, NLP, Modelling
- **Local Conformal Autoencoder**
Implementation and application of new manifold learning methods in PyTorch to scientific problems.
Python, Deep Learning, PyTorch
- **Mechanism of Action Prediction**
Predicting 206 classes of molecular mechanism based on cell viability and gene expression assay features.
Python, PyTorch, Classification, Feature Engineering, Model Stacking

Education

- **M.S. Biophysics**
Goethe University Frankfurt
1.5 GER, 3.7/4 USA, First Class UK
2021
- **B.S. Biophysics**
Goethe University Frankfurt
2019

Skills

- **Technologies**
Python (Numpy, SKLearn, Pandas), PyTorch, Keras, Huggingface, SQL, MatLab
- **Languages**
English, German, Chinese (HSK2)
- **Areas of Expertise**
Machine Learning (Classification, Regression, Natural Language Processing, Generative Models, Autoencoders), Manifold Learning, Molecular Dynamic Simulations, Optics, Complex Systems Physics

Other Activities & Hobbies

- **Machine Learning Journal Club**
Participated in weekly meetings about new ML papers.
- **Physics for Refugees**
Organizing a weekly session for refugee children where we do child friendly physics experiments.
- **AI Art**
Running an AI art Instagram and Twitter account for publishing works and resources. @Omorfiamorphism
- **Hobbies**
Reading (mostly SciFi and Murakami), going to the gym and bouldering