CODE LABS ACADEMY

# CERTIFICATE

## OF COMPLETION

**Rowan Y Mulligan,**
representing CLA CodeLabs GmbH,
with domicile in Stresemannstraße 23, 10963 Berlin.

Certifies that

## Thomas Oeser

**Date of Birth: 03.11.1997**

**has successfully completed the**

**24-Week Data Science & AI Bootcamp (October 21, 2024 - April 21, 2025)**

### Acquired Skills:

**Preparatory phase**: SQL, Python, Jupyter Notebook, Git and GitHub, Linear Algebra, Probabilities and Statistics.
**Data Analytics**: Data Analysis, Data Preparation, Data Visualisation, Data Exploration.
**Classic Machine Learning:** Machine Learning, Supervised and Unsupervised Learning, ML Model Enhancement, Naive Bayes, SVM, Random Forests, ML Pipelines, Classification.
**Deep Learning**: Neural Networks (Implementation, Troubleshooting & Optimisation), CNN Architectures, Autoencoder Architecture, Data Augmentation, Tensorflow, Keras, Scikit-Learn.
**Natural Language Processing:** Text Coding for NLP, Recurrent Neural nNetworks RNN, LSTM, Attention Mechanisms, Transformer Model, Chatbot Building.

Course Leader

CLA General Manager

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