Our **trainings** introduce the foundations of data analysis and relevant tools for data scientists. During our sessions, we always keep data-driven use cases in sight. Our modular training concept consists of skill building blocks from introductory to expert level. We emphasize applications and a hands-on approach. All trainings take place in a [virtual environment](#) or [on-site](#). Our trainers are senior data scientists with extensive experience in research and industry.

Our **TechTrainings** are geared towards technical users - data scientists, analysts, engineers - building data-driven innovation hands-on.

Our **BusinessTrainings** provide insights for decision makers - shedding light on how to put data science and artificial intelligence to work in the enterprise.

We use our [digital laboratory in the cloud](#), thus each participant can work at his workspace independently while the trainer is presenting. We focus on interactivity, hands-on and individual support. This is what we aim with our developed and well tested trainings material in [Jupyter Notebooks](#), small group sizes and enough time for practice.
Specialization for machine learning on time series with a focus on analysis, classification and forecast.

**Level:** 🏷️ (Advanced Pro)

**Duration:** 2 days

**Prerequisites:** DAP + MLP + DLT (or similar know-how)

**Language:** english, german; materials are in english

1. **Overview**
   An overview over machine learning on time series.

2. **Handling Time Series with pandas**
   Working with time series data as dataframes.

3. **Time Series Analysis**
   Analysing time series data for structure.

4. **Time Series Classification and Regression**
   Classification and regression tasks where the inputs are time series.
   - **Feature Engineering on Time Series**
     Describing time series so that ML algorithms understand.

5. **Time Series Forecasting**
   About predicting a time series several steps into the future.
   - **Classical Time Series Forecasting Models**
     Statistical modelling applied to forecasting.
   - **Forecasting with Prophet**
     An easy-to-use model from our colleagues at a social media company.
   - **Forecasting with Shallow Learning**
     How to apply any supervised ML regression algorithm for forecasting.
   - **Forecasting with Deep Learning**
     Using recurrent neural networks to forecast a time series.