## **Machine Learning with Python**

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In the workshop "Machine Learning with Python" the participants learn the fundamentals of implementing machine learning algorithms with Python and Jupyter Notebooks. The workshop consists of a series of modules, each having a lecture and exercise part. The specific content of the course is:

- Introduction to general concepts of machine learning
- Data preparation for machine learning
- Selected advanced Python syntax important for machine learning
- Virtual environments and version control with Git & Github
- Supervised learning with Scikit-learn
- Neural networks and deep learning with PyTorch
- Outlook: Unsupervised and reinforcement learning algorithms

As a pre-requisite, the participants should have a basic knowledge of Python, e.g. as acquired in a "Python-Basics" course.