



# **mlr3 - A new framework for machine learning with R**

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The R package 'mlr3' and its associated ecosystem of extension packages implements a powerful, object-oriented and extensible framework for machine learning (ML). It provides a unified interface to many learning algorithms available on CRAN, augmenting them with model-agnostic general-purpose functionality that is needed in every ML project, for example train-test-evaluation, resampling, preprocessing, hyperparameter tuning, nested resampling, and visualization of results from ML experiments. The package is a complete reimplementaion of the predecessor 'mlr' that leverages many years of experience and learned best practices to provide a state-of-the-art system that is powerful, flexible, extensible, and maintainable.

After a short introduction, I will give an encompassing overview over the state of the packages and highlight some exciting new features. Additionally, be prepared for some in-depth discussion about rather less known internals of R which led to arguably the most visible design decisions.