4.3 Metalearning and autoML

> .... special slides ..... *yikes*

Variety of Models

- More specific knowledge, that is, models for smaller subsets, eventually, individual entities

Model Management

Bias

- Can't live with it: given a dataset and a learning algorithm, not every model is possible

- Can't live without it: bias-free learning is futile

- **Bias-free algorithm**: can learn any model but doesn't have any preference for one over the other

Metalearning/automl Role

- Metalearning for algorithm selection
    - induce model from metadata to predict the best algorithm on a new dataset

Opportunities and Challenges

- Dataset morphing to understand ML algorithm behavior
- dataset characterization
- dataset embeddings

[< Go back](#)