


Automated Machine Learning



With H2O Driverless AI

H2O Driverless AI

Figure 1. Magic Quadrant for Data Science and Machine-Learning Platforms



Source: Gartner (February 2018)



Promises of Automation

- Decreases costs for practicing data science
- Shortens time-to-value
- Enforces standards and best practices
- Frees people to focus on more subtle and complex tasks



Demo



H2O Driverless AI

Public Automatic Machine Learning Resources

References

Deep Feature Synthesis: Towards Automating Data Science Endeavors

https://groups.csail.mit.edu/EVO-DesignOpt/groupWebSite/uploads/Site/DSAA_DSM_2015.pdf

CSAIL, MIT

Efficient and Robust Automated Machine Learning

<https://pdfs.semanticscholar.org/775a/4e375cc79b53b94e37fa3eedff481823e4a6.pdf>

Department of Computer Science, University of Freiburg, Germany

Using Machine Learning to Explore Neural Network Architecture

<https://ai.googleblog.com/2017/05/using-machine-learning-to-explore.html>

Google

AutoML: Automatic Machine Learning

<http://docs.h2o.ai/h2o/latest-stable/h2o-docs/automl.html>

H2O.ai

Public Automatic Machine Learning Resources

Software

Data Exploration

Pandas Profiler: <https://github.com/pandas-profiling/pandas-profiling>

Feature Engineering

Feature Tools: <https://index.pocketcluster.io/featuretools-featuretools.html>

Modeling

Auto-Sklearn: <https://automl.github.io/auto-sklearn/stable/>

H2O.ai AutoML: <https://www.h2o.ai/download/>

Pipelines

TPOT: <https://github.com/EpistasisLab/tpot>

ATM: <https://github.com/HDI-Project/ATM>

Try H2O Driverless AI!



<https://www.h2o.ai/driverless-ai/>