Automated Machine Learning

With H2O Driverless AI

H2O Driverless AI



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

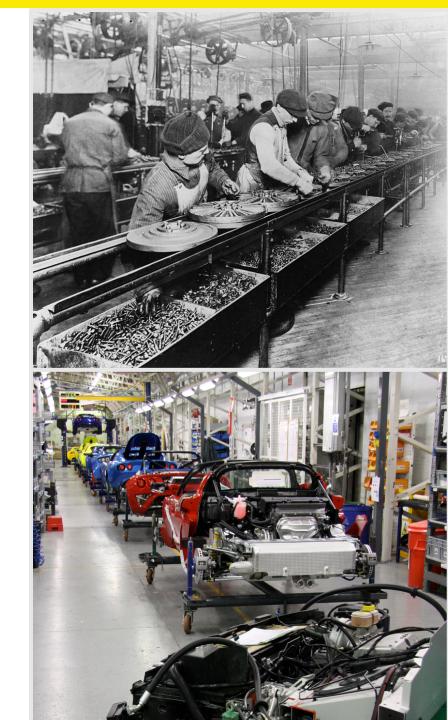






Promises of Automation

- 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 Al!

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