

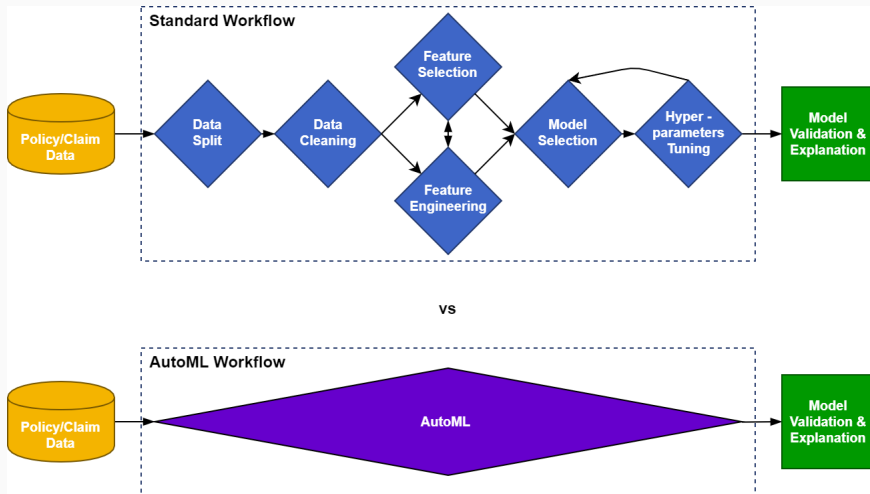
AutoKeras

AutoML Package

Jan Kruszewski, Damian Skowroński, Tomasz Kurpiński

TABLE OF CONTENTS

- 1 **Idea of AutoML**
- 2 **What does a good AutoML package need?**
- 3 **Features of AutoKeras**
- 4 **Example model**
- 5 **Results of benchmark**



What does a good AutoML package need?

Important features:

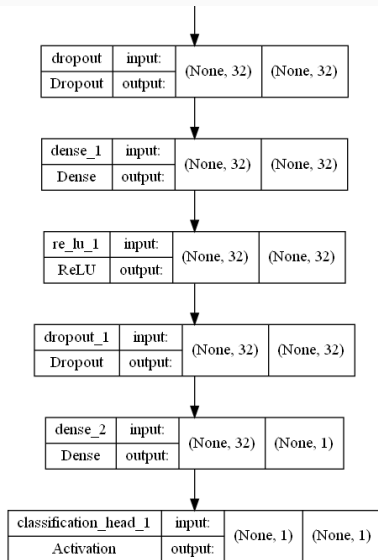
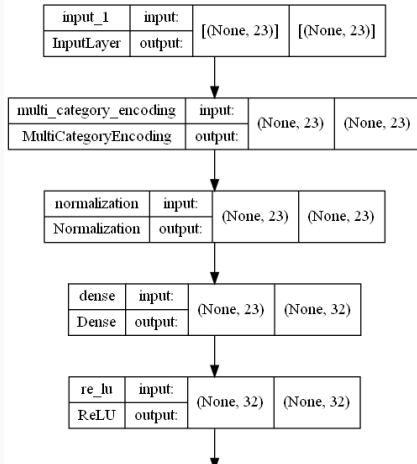
- Intuitive way of building the model
- Good documentation
- Ability to pre-process data
- Training satisfactory models

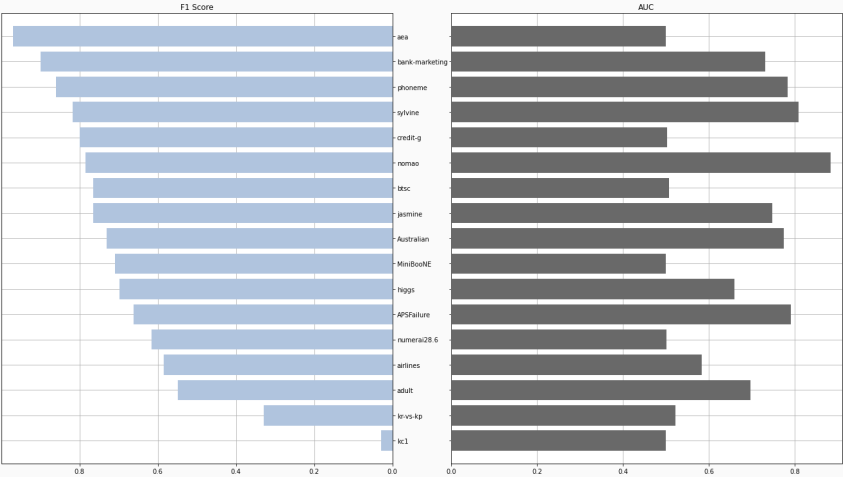
```
import autokeras as ak

clf = ak.ImageClassifier()
clf.fit(x_train, y_train)
results = clf.predict(x_test)
```

AutoKeras features:

- Only deep learning models
- Necessary preprocessing
- Similar way of building model to Sklearn
- Extensive documentation
- Doesn't use cloud services





Results of benchmark - group competition

Team	AUC	set	framework
KTR	0.7912	valid	FLAML
Gakubu	0.7908	valid	AutoGluon
Gakubu	0.7852	valid	Own implementation
WTF	0.7835	valid	AutoPytorch
Moja grupa	0.7815	valid	AutoPytorch
Moja grupa	0.7808	valid	Own implementation
Moja grupa	0.7789	valid	Autosklearn
WTF	0.7768	valid	Own implementation
KTR	0.7617	valid	Own implementation
Tojada	0.7469	valid	AutoKeras