

The dataset I used is the “penguin size” data, and the coding environment is google colab. The dataset contains the following information:

	species	island	culmen_length_mm	culmen_depth_mm	flipper_length_mm	body_mass_g	sex
0	Adelie	Torgersen	39.1	18.7	181.0	3750.0	MALE
1	Adelie	Torgersen	39.5	17.4	186.0	3800.0	FEMALE
2	Adelie	Torgersen	40.3	18.0	195.0	3250.0	FEMALE
3	Adelie	Torgersen	NaN	NaN	NaN	NaN	NaN
4	Adelie	Torgersen	36.7	19.3	193.0	3450.0	FEMALE

I performed two different kinds of tasks with pycaret and autokeras. For pycaret, the task is to predict body mass, which is a number. And for autokeras, the task is to predict the species, which is a category.

The GUI for pycaret features a vertical stack of input fields on the left for 'species', 'island', 'culmen_length_mm', 'culmen_depth_mm', 'flipper_length_mm', and 'sex'. Below these is a 'Clear' button. To the right, there is a single input field for 'body_mass_g' and a 'Flag' button. An 'Examples' table is shown at the bottom.

species	island	culmen_length_mm	culmen_depth_mm	flipper_length_mm	sex
Adelie	Torgersen	39.1	18.7	181	MALE

Fig 1. GUI for pycaret

The GUI for autokeras features a vertical stack of input fields on the left for 'island', 'culmen_length_mm', 'culmen_depth_mm', 'flipper_length_mm', 'body_mass_g', and 'sex'. Below these is a 'Clear' button. To the right, there is a single input field for 'species' and a 'Flag' button. An 'Examples' table is shown at the bottom.

island	culmen_length_mm	culmen_depth_mm	flipper_length_mm	body_mass_g	sex
Torgersen	39.1	18.7	181	3750	MALE

Fig 2. GUI for autokeras

For the training process, with the same amount of data, autokeras is easier to set up but with a limited choice of model types. Pycaret takes more effort to set up, but it allows you to compare different model types.

P.S I have spoken with Prof. McComb for an extension.