

## 142 Initial Algorithm Comparison

	kNN	logistic regression	Gaussian discriminant	Naive Bayes	Perceptron
Model	flexible	$p(y   \mathbf{x})$ (LTU)	$p(y)p(\mathbf{x}   y)$	$p(y)p(\mathbf{x}   y)$ Naive assump.	LTU
Data	need distance	numeric	numeric	mixed	numeric
Interpretable	no	yes	not much	somewhat	yes
Missing vals?	no	no	no	yes	no
Outliers	good w. $k$	ok	bad	fair/poor	fatal(*)
Irrelevant features	very bad	bad	bad	fair	bad(+)
Computation	lazy	good(-)	good	v. good	good

(\*) can use  $\eta_t = 1/t$  learning rate tricks