Test	Description
Row 1	A data type object describes interpretation of fixed
	block of memory corresponding to an
	array, depending on the following aspects:
	I Type of data (integer, float or Python object)
	Size of data
	Byte order (little-endian or big-endian)
	In case of structured type, the names of fields,
	data type of each field and part of
	the memory block taken by each field
	${f { m I}}$ If data type is a subarray, its shape and data type
	The byte order is decided by prefixing '<' or '>' to
	data type. '<' means that encoding is
	little-endian (least significant is stored in smallest
	address). '>' means that encoding is
	big-endian (most significant byte is stored in
	smallest address).
	A dtype object is constructed using the following
	syntax:
	Machine Learning in Your Projects
	So naturally you are excited about Machine Learning
	and you would love to join the party!
	Perhaps you would like to give your homemade robot
	a brain of its own? Make it recognize faces? Or
	learn to walk around?

Row 2	Or maybe your company has tons of data (user logs,							
	financial data, production data, machine sensor							
	data,							
	hotline stats, HR reports, etc.), and more than likely							
	you could unearth some hidden gems if you just							
	knew							
	where to look; for example:							
	Segment customers and find the best marketing							
	strategy for each group							
	Recommend products for each client based on what							
	similar clients bought							
	Detect which transactions are likely to be fraudulent							
	Predict next year's revenue							
	And more							
	Whatever the reason, you have decided to learn							
	Machine Learning and implement it in your projects.							
	Great idea!							
ROW 3	Objective and Approach							
	This book assumes that you know close to nothing							
	about Machine Learning. Its goal is to give you the							
	concepts, the intuitions, and the tools you need to							
	actually implement programs capable of <i>learning</i>							
	from							
	data.							
	We will cover a large number of techniques, from the							
	simplest and most commonly used (such as linear							

	regression) to some of the Deep Learning						
	techniques that regularly win competitions.						
	Rather than implementing our own toy versions of						
	each algorithm, we will be using actual						
	productionready						
	Python frameworks:						
ROW 4	Scikit-Learn is very easy to use, yet it implements						
	many Machine Learning algorithms efficiently, so						
	it makes for a great entry point to learn Machine						
	Learning.						

## Table 5. Timer feature comparison

Timer type	Tim er	Counter resoluti on	Count er type	Prescal er factor	DMA request generati on	Captur e/ compa re channe ls	Complement ary output
Advancedcont rol	TIM1, TIM8	16-bit	Up, Down, Up/down	Any integer between 1 and 65536	Yes	60 MHz	120 MHz
Advancedcont rol1	TIM2, TIM8	32-bit	Up, Down, Up/down	Any integer between 1 and 65536	Yes	80 MHz	150 MHz

## Table 5. Timer feature comparison (co

Timer type	Timer	Counter resolution	Counter type	Prescaler factor	DMA request generation	Captu compa chann
General purpose	TIM2, TIM5	32-bit	Up, Down, Up/down	Any integer between 1 and 65536	Yes	4
	TIM3, TIM4	16-bit	Up, Down, Up/down	Any integer between 1 and 65536	Yes	4
Basic	TIM6, TIM7	16-bit	Up	Any integer between 1 and 65536	Yes	0
General purpose	TIM9	16-bit	Up	Any integer between 1 and 65536	No	2
	TIM10, TIM11	16-bit	Up	Any integer between 1 and 65536	No	1
	TIM12	16-bit	Up	Any integer between 1 and 65536	No	2
	TIM13, TIM14	16-bit	Up	Any integer between 1 and 65536	No	1