The purpose of the questionnaire is to determine your experience studying machine learning.

It is already established that machine learning is a difficult topic to learn, however limited research has been undertaken which identifies the barriers that students face when learning this area of computer science and possible strategies to aid with the comprehension of this domain. This study aims, through communication with students who have, and are currently undertaking a machine learning course to identify specific aspects of knowledge within machine learning which are the most difficult to grasp.

By filling in this survey you are consenting to this data being utilised for the purposes of this study. The data obtained from this questionnaire will be anonymous and will only be viewed by researchers involved within this study at Newcastle University.

If you require any additional information, please contact B.Allen2@newcastle.ac.uk

When starting the machine learning module, how would you describe your level of maths attainment?

- Studied maths up to GCSE level or equivalent
- Studied maths up to A-Level or equivalent
- Maths was a major part of my first degree
- My first degree was in maths

On a scale of 1-5 how challenging were these topics on the machine learning module?

(5 = most challenging)

	1	2	3	4	5
Maths for machine learning (e.g. probability, statistics)	0	0	0	0	0
Data representation	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Linear regression	0	\bigcirc	\bigcirc	\bigcirc	0
Backpropagation	0	0	0	0	0

	1	2	3	4	5
Traditional supervised and unsupervised models	0	0	0	0	0
Deep Learning (e.g. MLP, CNN, RNN)	0	0	0	0	0
Dimensionality reduction	0	0	0	0	0
Performance metrics	0	0	0	0	0
Other	aschine le	araing whi		still upsur	0.022
Please select the topics of m	achine le	arning whi	ch you are	still unsur	e on?

Maths for machine learning (e.g. probability, statistics)	0
Data representation	\bigcirc
Linear regression	\bigcirc
Backpropagation	0
Traditional supervised and unsupervised models	0
Deep Learning (e.g. MLP, CNN, RNN)	0
Dimensionality reduction	0
Performance metrics	0

Other

Which aspect of the module did you find the most difficult?

Theoretical subject knowledge / exam

□ Practical exercises / coursework

Which resources did you use to aid your learning and how often did you use these?

	Never	Rarely	Sometimes	Often
Textbook	0	0	0	0
Website (e.g. stack overflow)	0	0	0	0
Online course (e.g. Coursera)	0	0	0	0
Other	0	0	0	0
If other, please state what this res	source was			

On a scale of 1-5 how useful did you find the following resources?

(5= very	useful)
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	1	2	3	4	5
Textbook	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Website (e.g. stack overflow)	0	0	0	0	0
Online course (e.g. Coursera)	0	0	0	0	0

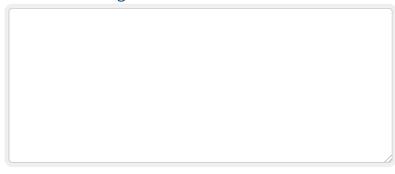
Which study strategies did you use?

Note taking	0
Practical exercises	\bigcirc
Goal setting	\bigcirc
Study group	0
Quizzes	0
Reflection	0
Other	0

If other, please state what this study strategy was

On a scale of 1-5 how usef (5 = very useful)	ful would you describe these study strategies?				
	1	2	3	4	5
Note taking	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Practical exercises	\bigcirc	0	0	0	\bigcirc
Goal setting	\bigcirc	0	0	0	\bigcirc
Study group	\bigcirc	0	0	0	\bigcirc
Quizzes	\bigcirc	\bigcirc	\bigcirc	0	\bigcirc
Reflection	\bigcirc	0	0	0	0
On a scale of 1-5, how con now? (5= very confident)	fident woul	d you feel	applying m	nachine lea	rning
	1	2	3	4	5
	0	0	0	0	0

Any additional comments on your experience studying machine learning?



Age

- 18-22 years old
- \bigcirc 23-27 years old
- 28-32 years old
- \bigcirc 33-40 years old
- \bigcirc 40+ years old
- Prefer not to say

Gender

⊖ Male

	efer not to say refer to self describe
Data	Protection Statement
anon comp	lata obtained from this questionnaire will be ymous and stored on a university access-controlled outer. The data will be stored until the end of the rch project finishing in 2021.
Subn	