

Teaching Machine Learning/ AI

The purpose of the questionnaire is to determine your experience teaching artificial intelligence / machine learning.

It is already established that artificial intelligence 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 lecturers who have, and are currently teaching an artificial intelligence / machine learning course to identify specific aspects of knowledge within this domain 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.

At what level is Machine Learning / AI taught?

- ☐ Undergraduate
- ☐ Masters
- ☐ Other

Is the module compulsory or optional?

- ☐ Compulsory
- ☐ Optional

How would you describe the gender demographics for your module? (e.g. even, mostly male, mostly female)

Any course pre-requisites (e.g. Level of maths knowledge, modules, specific programming skills)

What level of maths skills do you expect the students to have?

- ☐ No expected level
- ☐ Studied maths up to GCSE level or equivalent
- ☐ Studied maths up to A-Level or equivalent
- ☐ Undergraduate level maths knowledge
- ☐ Other

What level of programming skills do you expect the students to have?

- ☐ Beginner
- ☐ Novice
- ☐ Expert

Which programming language do you use in your module?

What topics are covered within your module? (e.g. Backpropagation, Linear Regression)

Do you teach any deep learning?

- ☐ Yes
- ☐ No

If you selected yes for the question above, which deep learning topics do you cover?

Please state any aspects of Machine Learning / AI which you think are essential topics

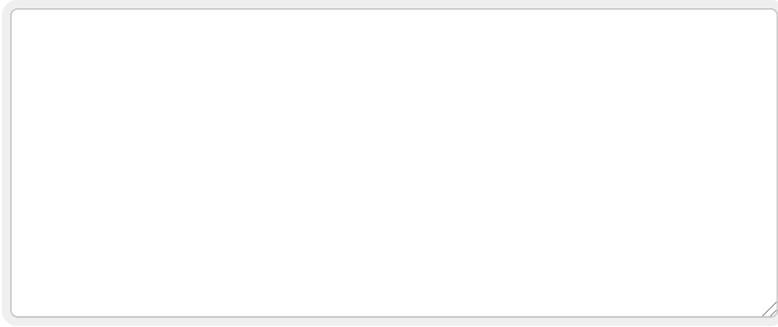
How is the module assessed? (e.g. exam, coursework, combination)

Is there any particular aspect that you feel students struggle with?

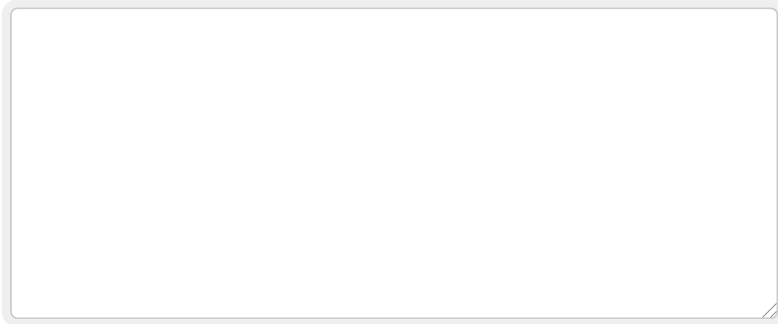
Where do you advise students to look for additional information / guidance?

- ☐ Textbook
- ☐ Online Resources
- ☐ Practical sessions
- ☐ Other

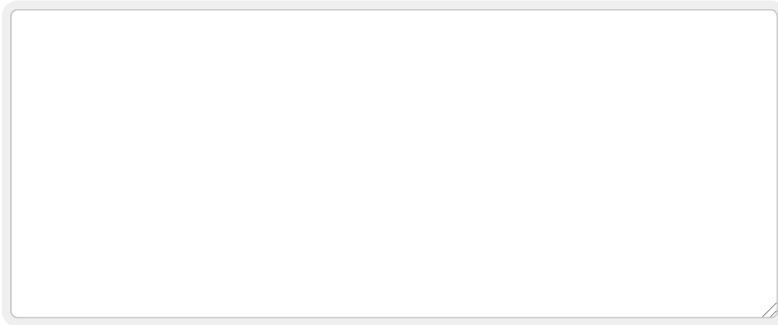
Please list any specific teaching strategies you employ (e.g. concept maps, real life example, quizzes)



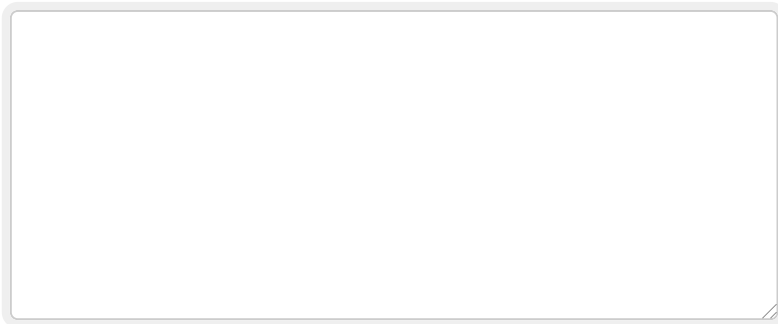
Do you receive student feedback on the module and if so is feedback generally positive?



How successful do students tend to be in your module?



Any additional comments on your experience teaching Machine Learning / AI



Data Protection Statement

The data obtained from this questionnaire will be anonymous and stored on a university access-controlled computer. The data will be stored until the end of the research project finishing in 2020.

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