

## 4F10 Deep Learning and Structured Data ~~Machine~~ Exam Preparation Session

Look at past exam questions: key thing/advice

- no guarantees of questions re-emerging
- but, they are indicative of future exam questions
- there is a typical style

4F10 questions are consistent with those the undergrads are familiar with

Exam is marked in same way as undergraduates

- scaling is applied to undergraduates
- the scaling is ~~applied~~ passed to the MPhil board of examiners to do with as they please

Distribution of marks

- targets aimed at undergrads
- 70% for first class, usually
- MPhil, hope for 65%+ range

Should not need to use the data books

- will tend to be given any expressions that we need, rather than expecting we go and find these in data books

Double/continued penalisation:

- if you make a really basic mistake tenths will be penalised throughout
  - Mark gave the example of a MoG being presented as a product of Gaussians, rather than sum
  - If the next question is about parameter estimation and you got the above wrong then you would continue to be penalised.



- Do have a calculator
  - rarely need to use one, but has happened
  - make sure you have one

Transformer model, etc:

- Uni asks lecturers to avoid book-work heavy questions that require a lot of memorisation
- Don't need to remember precise ~~ex~~ architectures
  - Need to know what an encoder & decoder is
  - Might be useful to know form
  - Need to know quite a lot of detail potentially by the sounds of things

Marking scheme

- A-priori regarding expectations of how student performs
- However there is flexibility  $\Rightarrow$  can move weights around slightly if needed
- Does not usually happen

Scaling

- normally very little is done
- can be request to "balance" things at very bad end

Most common error:

- People not ~~asking~~ ~~the~~ answering the question asked

One that Mark keeps seeing that is surprising:  
people trying to perform marginalisation using product rather than sum



Good general advice was given for MLN1:

- ~~perform~~ answer some of all questions
- be strict with yourself: only spend 30 mins on each question.

Every stage of marking in an answer is worked through; Mark wants to assess general understanding and allocate marks appropriately.

MPhil

Board of examiners provided with:

- raw scores for MPhil students
- whether scaling was applied to undergraduates

Questions

- Forum on Moodle
- Email