

TEACHER REPORT

Name of Teacher	Kan Min-Yen
Module	CS3244-Machine Learning (LECTURE)
Academic Year/Sem	2019/2020 - SEM 1
Department	COMPUTER SCIENCE
Faculty	SCHOOL OF COMPUTING

Raters	Student
Responded	73
Invited	174
Response Ratio	42%

Note:

Class Size = Invited; Response Size = Responded; Response Rate = Response Ratio

A. GUIDELINES FOR INTERPRETING THE REPORT

The teacher evaluation report is for developmental purposes and is meant to help identify strengths and areas for improvement. Please consider the following recommendations that will aid in interpreting the results:

1. Examine the report by taking note of patterns in order to consider how best to act on the feedback your students have taken the time to provide. Use the reflection section at the end to reflect upon how you might act on the feedback.
2. These evaluations stem from student perception and thus constitute one source of evidence among others as to the quality of your teaching. Any response to the feedback should be based on the most representative results rather than on outlying responses.
3. Upon getting a general sense as to what has gone well, and which areas may require attention and improvement, it is important to drill down to the related questions. These questions can help guide future action if feedback from students suggest areas for improvement.
4. Keep both the likert scale and written comments in mind while reading through the report. High scores (4+) suggest student consensus indicating a strength. On the other hand, low scores (2-) should be considered as an area that requires immediate developmental focus based on student feedback.

B. NOMINATION FOR TEACHING AWARDS

	Response Count
I would like to nominate Kan Min-Yen for teaching awards	10

Comment
- Excellent and motivated lecturer
- Knowledgeable on subject. Delivers despite high module workload on the teaching team. Encourages class participation and asks questions that encourage critical thinking. Places emphasis on fairness for all students.
- One of the most responsible prof in nus
- Approachable and knowledgeable
- Although there are a lot of classes and students taking this module, Prof. Kan Min-Yen takes time to help many groups with his TAs and attends tutorial classes to help out.
- Prof Kan give a good introduction to machine learning with adequate well-chosen materials that help understanding. His pedagogy fits the nature of the topic and help student understand well.
- Very enthusiastic about his area of work.
- his lectures are easy to understand
- Very committed and knowledgeable.
- Dedicated, hardworking, willing to help and knowledgeable

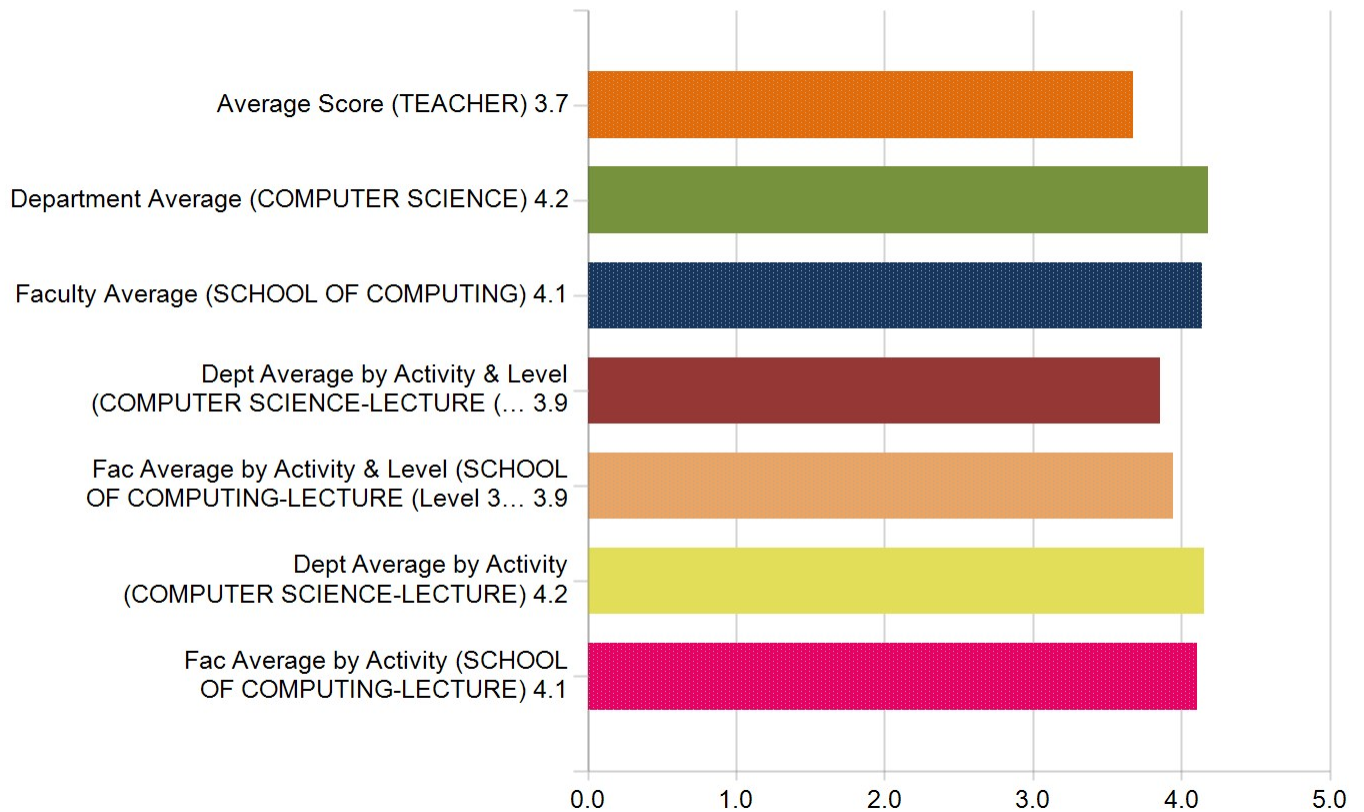
C. STUDENT FEEDBACK SCORES

(i) Rating Score

Question	Average Score (TEACHER)		Department Average (COMPUTER SCIENCE)		Faculty Average (SCHOOL OF COMPUTING)	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Overall, the teacher is effective.	3.7	1.1	4.2	0.9	4.1	0.9

Question	Average Score (TEACHER)	Dept Average by Activity & Level (COMPUTER SCIENCE-LECTURE (Level 3000))	Fac Average by Activity & Level (SCHOOL OF COMPUTING-LECTURE (Level 3000))	Dept Average by Activity (COMPUTER SCIENCE-LECTURE)	Fac Average by Activity (SCHOOL OF COMPUTING-LECTURE)
	Mean	Mean	Mean	Mean	Mean
Overall, the teacher is effective.	3.7	3.9	3.9	4.2	4.1

Overall, the teacher is effective



Question	Average Score (TEACHER)		Department Average (COMPUTER SCIENCE)		Faculty Average (SCHOOL OF COMPUTING)	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
The teacher has enhanced my thinking ability.	3.8	1.0	4.2	0.9	4.1	0.9
The teacher provided timely and useful feedback.	3.7	1.1	4.2	0.9	4.1	0.9
The teacher has increased my interest in the subject.	3.7	1.1	4.1	0.9	4.1	1.0
Average of Q1-Q3	3.7	1.1	4.1	-	4.1	-

Question	Average Score (TEACHER)	Dept Average by Activity & Level (COMPUTER SCIENCE-LECTURE (Level 3000))	Fac Average by Activity & Level (SCHOOL OF COMPUTING-LECTURE (Level 3000))	Dept Average by Activity (COMPUTER SCIENCE-LECTURE)	Fac Average by Activity (SCHOOL OF COMPUTING-LECTURE)
	Mean	Mean	Mean	Mean	Mean
The teacher has enhanced my thinking ability.	3.8	3.9	4.0	4.2	4.1
The teacher provided timely and useful feedback.	3.7	3.9	4.0	4.1	4.1
The teacher has increased my interest in the subject.	3.7	3.8	3.9	4.1	4.0
Average of Q1-Q3	3.7	3.9	3.9	4.1	4.1

Department Specific Questions

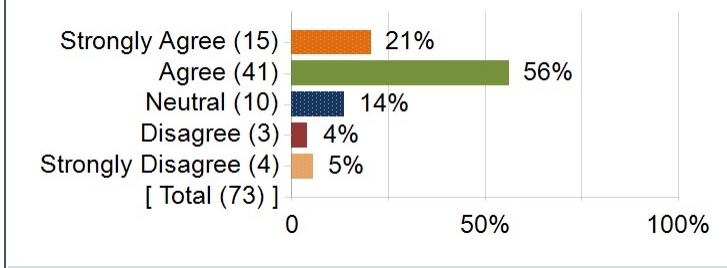
Question	Average Score (TEACHER)		Department Average (COMPUTER SCIENCE)	
	Mean	Standard Deviation	Mean	Standard Deviation
The teacher has enhanced my ability to communicate the subject material.	3.8	0.9	4.1	0.8

Question	Average Score (TEACHER)		Department Average (COMPUTER SCIENCE)	
	Mean	Standard Deviation	Mean	Standard Deviation
The teacher's attitude and approach encouraged me to think and work in a creative and independent way.	3.7	1.1	4.1	0.9

Question	Average Score (TEACHER)		Department Average (COMPUTER SCIENCE)	
	Mean	Standard Deviation	Mean	Standard Deviation
The teacher cares about student development and learning.	3.8	1.1	4.2	0.8

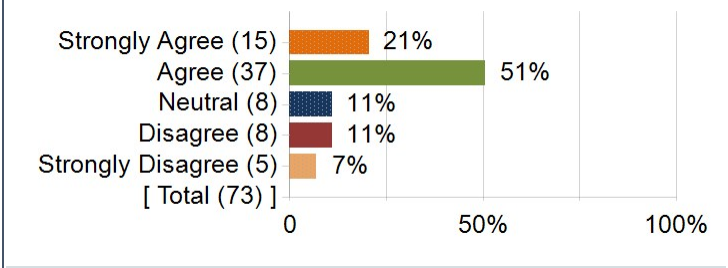
(ii) Distribution of Responses and Additional Statistics

1. The teacher has enhanced my thinking ability.



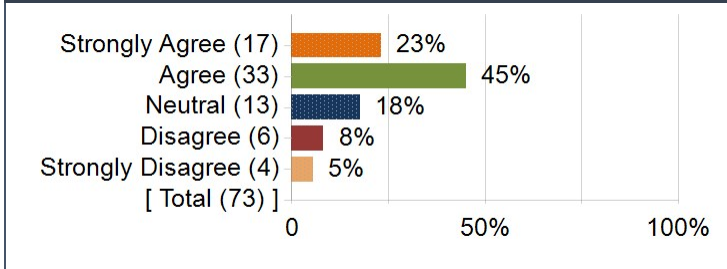
Statistics	Value
Response Count	73
Mean	3.8
Median	4.0
Mode	4
80th Percentile	4.6
Standard Deviation	1.0
Positive Feedback	77%

2. The teacher provided timely and useful feedback.



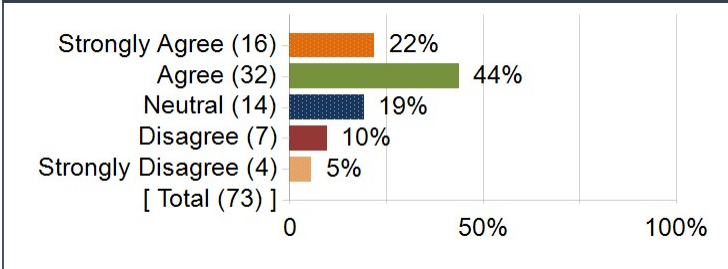
Statistics	Value
Response Count	73
Mean	3.7
Median	4.0
Mode	4
80th Percentile	4.6
Standard Deviation	1.1
Positive Feedback	71%

3. The teacher has increased my interest in the subject.



Statistics	Value
Response Count	73
Mean	3.7
Median	4.0
Mode	4
80th Percentile	5.0
Standard Deviation	1.1
Positive Feedback	68%

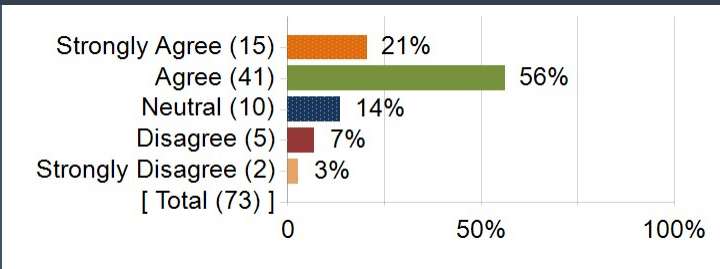
4. Overall, the teacher is effective.



Statistics	Value
Response Count	73
Mean	3.7
Median	4.0
Mode	4
80th Percentile	5.0
Standard Deviation	1.1
Positive Feedback	66%

The teacher has enhanced my ability to communicate the subject material.

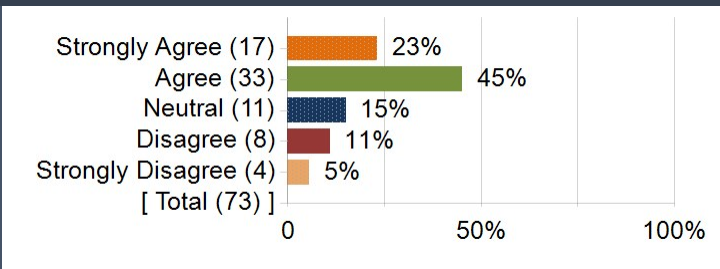
The teacher has enhanced my ability to communicate the subject material.



Statistics	Value
Response Count	73
Mean	3.8
Median	4.0
Mode	4
80th Percentile	4.6
Standard Deviation	0.9
Positive Feedback	77%

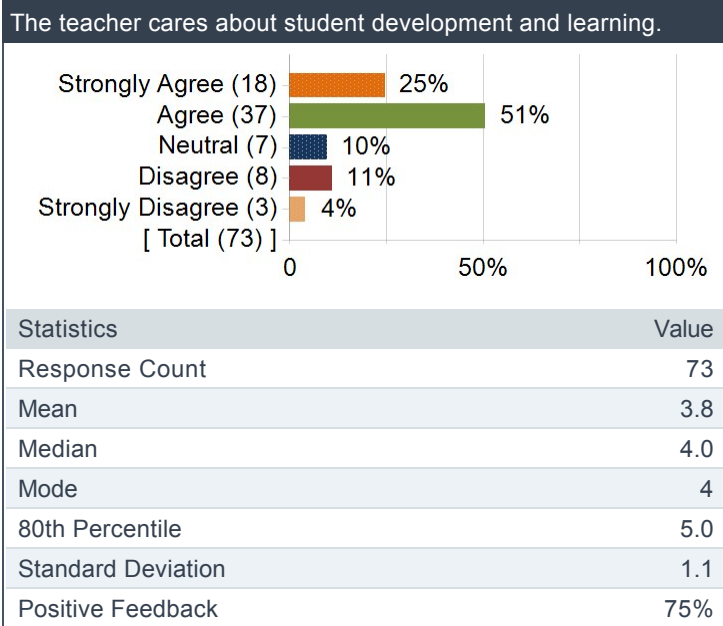
The teacher's attitude and approach encouraged me to think and work in a creative and independent way.

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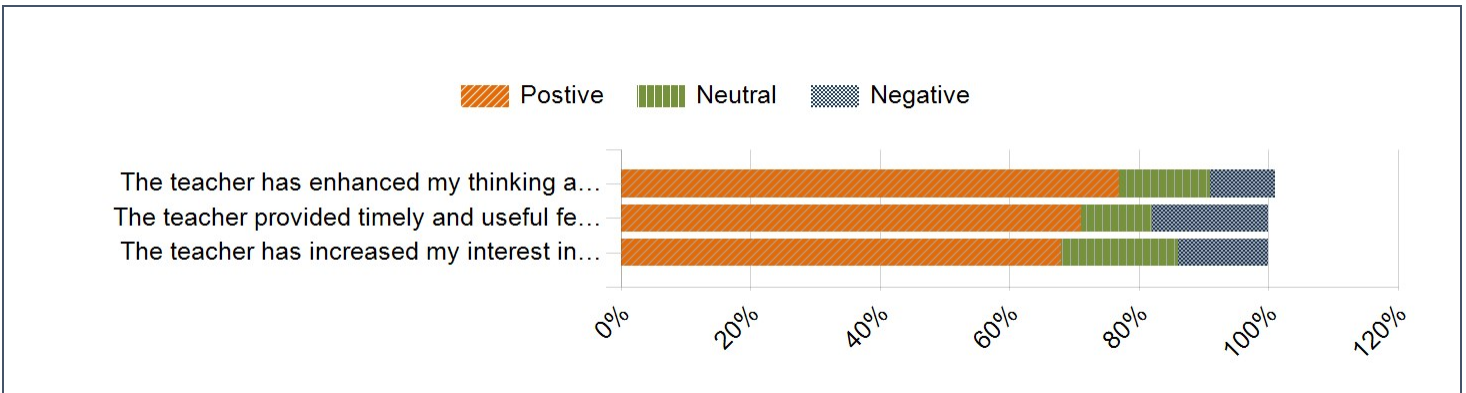


Statistics	Value
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Standard Deviation	1.1
Positive Feedback	68%

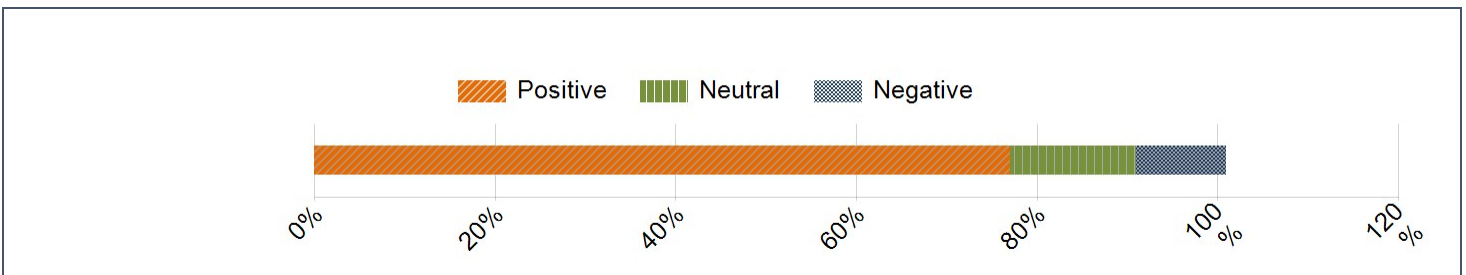
The teacher cares about student development and learning.



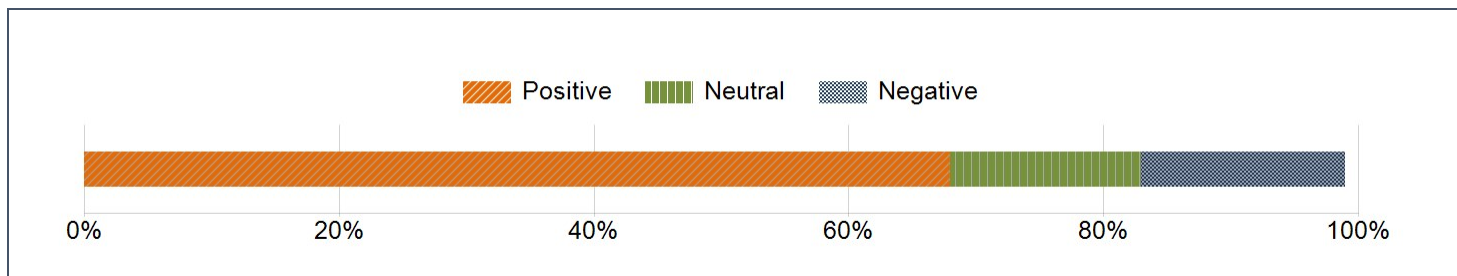
(iii) Scale Distribution of Responses



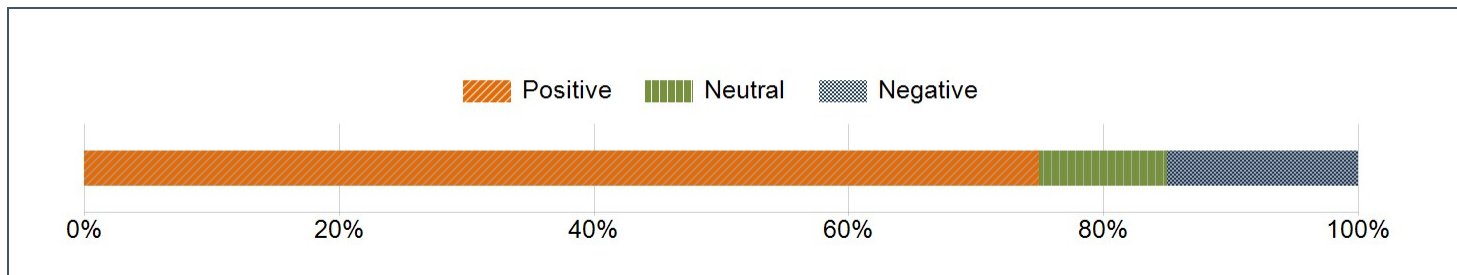
The teacher has enhanced my ability to communicate the subject material.



The teacher's attitude and approach encouraged me to think and work in a creative and independent way.



The teacher cares about student development and learning.



(iv) Rating Scores vs. Gender

Question	M	F	Overall
The teacher has enhanced my thinking ability.	3.9	3.4	3.8
The teacher provided timely and useful feedback.	3.8	3.1	3.7
The teacher has increased my interest in the subject.	3.9	3.2	3.7

D. STRENGTHS

What are Kan Min-Yen's strengths?

Comments
he tries nice person can speak english well
Quick response to queries
Very passionate about machine learning in general
Knowledgeable on subject. Delivers despite high module workload on the teaching team. Encourages class participation and asks questions that encourage critical thinking. Places emphasis on fairness for all students.
he is passionate
During the tutorial sessions, he provided deeper insights into the topics.
Responsible and passionate, offering students lots of things to learn
making lecture videos
He is willing to help with any queries we may have.
Explains things well
NA
Good at explaining. Really. But just that the medium (eLectures) does not do him justice.
-
Nice. Defined concept in layman really helps me understand the deep concepts
Very knowledgeable and committed to teaching.
Patient, approachable.
-
Approachable, explaining concepts in a relatable way
Nil
Very knowledgeable on the content.

E. AREAS FOR IMPROVEMENT

What improvements would you suggest to Kan Min-Yen?

Comments
Respond to emails in a reasonable timeframe, speak faster (your videos are too slow even at 2.5x speed), be more available for consultations throughout the module (instead of just during tutorials and zoom), look at some of the online stuff and their explanations (some of your explanations are very poor, such as adaboost).
1) explanations in video not clear 2) notes quite messy 3) wonky format for midterms 4) im taking another machine learning module concurrently with this (dsa4211) and i feel like without the supplementary knowledge from my other module, i would not be able to understand this cs3244 at all. i feel like this module is taught in a way that already requires knowledge about machine learning, which defeats the whole purpose of this introductory module. maybe its possible to be more clear in establishing the basics of this module first. 5) pls provide full solutions for the colab notebooks
Explanation in the lecture videos are quite difficult to understand, I often have to replay the sentences a few times to decipher, and sometimes I still don't get it. I feel like this is because there are missing pieces in the explanation that isn't connecting together for someone who completely has no background to follow and fully understand easily.
Nil
Try to reduce the amount of math covered. The module is currently too theoretical
i think flipped classroom makes it hard to ask questions about the lecture :(it doesnt work for everyone though i understand that it is beneficial

Comments
It's just a personal preference, but I would prefer live lectures rather than video lectures. Also, the pace of speaking is a little slow.
The lecture videos for the first topic are awesome, but the quality of the videos progressively decrease after that. I guess those good ones are made this sem while the rest are old videos. The old videos sometimes can't match the lecture slides which is quite frustrating.
Na
contains in the lecture slides
More timely
The flipped classroom is quite ineffective. A more in-depth explanation of certain concepts would be appreciated
Clearer lecture slides could be provided. There are quite a few open-ended questions that were raised during the lecture but they are often not answered, leaving us unsure if our intuition is actually correct. Also, the way the content is split into pre and post could be quite confusing at times. For example, it would probably be more effective to have the learning materials for kNN grouped together.
Could have more examples (in terms of calculations and application). Sometimes the lecture don't teach enough stuff (and collab parts can't understand (think 1-2 times only though))
He explains certain things quite elaborately and clearly, but some things are just glossed over. There could be more of a focus on defining and explaining new concepts and how they fit into existing content, rather than launching straight into the proofs / extensions and variants. I think PCA in particular was one topic which could have been explained better.
NA
My opinions (please dont take as a rant, really like the module and professor and think it can be improved) Project: <ul style="list-style-type: none"> - Do away with project and replace it with 3 task-specific assignments. (E.g. After teaching linear regression, ask students to implement a Loess Regression algorithm that can take data and a span value). Could make these small assignments be 2 person projects. - Currently, in week 1 students who already know about Deep Neural Networks have an edge over other students. This project rewards those who already know the content, in which case, it seems like already knowing ML is a prereq to this mod. It would help students compete on a level playing field by limiting assignments to only what was taught so far by making them more specific. - The project involves grading on too many soft skill components and not enough technical components, is it really meant to be a ML project if no checks on our ML capabilities are performed? Since no actual code is checked or graded any student can make any claim about their accuracy, as long as they present it nicely in the poster and video. Its not feasible to check so many students ML projects, especially if it is messy, so thats why i recommend small assignments instead. Plus once submitted, people can learn from mistakes, but for this large project, people submit and forget about it, never touch it again. Lectures: <ul style="list-style-type: none"> - Please have lectures instead of flipped classrooms, especially if we want to discuss things at a technical level (i.e. maths). Online courses focus on intuition and visuals so they can be handwavy. Play to the strengths that a university has which an online course does not. Midterms: <ol style="list-style-type: none"> 1. If there isnt enough time to do the whole paper, there is no reason to revise all the past chapters. Students should simply just study 70% of the material, and just choose the questions for topics they have already studied. 2. Convoluted questions that are not conceptually important. For example, the probability question that was MRQ and required total probability applied to conditional probability on 4 different values for each MRQ option. I mean, if a student can do it once, he can do it four times, is there really a need to make him do it 4 times when its a 1 hour paper. My point (1) says why i think this is a bad idea, it wastes student's time and makes it impossible to finish the paper while not really testing meaningfully. 3. The exam venue is not conducive. People shaking their legs beside me when the tables and chairs are connected means my table kept shaking. I did not have enough space to put my pencil case and had to hold it with my legs together. My calculator kept dropping on the floor and i had to search the ground for it. Please, make use of the university's exam venues since the venues already exist and are being paid for by school fees. I think the module is good and can be improved, thats why i typed out this feedback, otherwise i wouldnt put effort into giving feedback. Thank you for reading and for teaching!
-
Provide more guided practices?
The notes are hard to understand without the videos, makes revision hard
Some lectures are quite hard to understand, and slides can be hard to read as a standalone, hope that these concepts can be

Comments
explained from the intuition to the details in a more gradual manner, I think this would be better even if the videos turn out to be very long.
Less flipped classroom for lecture, more physical meetups Explanations for code More foundations for the mathematics
Sometimes, Prof uses very complex language to explain simple things which confuses students and sometimes assumes students know some of the stuff which they might not.
Please review the module content, there is way too much being covered and the workload is too heavy. The lecture videos and notes does not explain the concept well. I understand the importance of applying what we learnt in class through the project, but it is extremely difficult to do the project while still trying to understand the concepts/ not knowing anything about the model yet as it is taught in the later part of the semester. The tutorials and collab can be more properly planned out too. The standard between the tutorial and collab with the lecture is way too different sometimes, and the collab did nothing to help me understand whatever thats being taught in class. Peer review portion of the project is a huge waste of time in my opinion, as some of the projects used concepts not taught in class, which makes it difficult to give constructive feedback. It's great that you tried to cover as much as possible in the module, but i would rather go more in depth into each topic.
Most of the notes are full of errors and the video could not explain the concepts well. One has to search a lot to fully understand. I know the prof could be very busy with his own business, but those videos were quite inefficient, hard to understand and make students sleepy
Please hold lectures during the assigned lecture slot and webcast it for students who do not wish to attend lecture at the allotted time. The flipped classroom format of this module was messy, particularly because the upload of lecture notes or videos were not very regular. There were also a number of discrepancies between video slides and the slides provided in 'Materials', which made the lectures more confusing as we do not know which slide is correct. I also feel that this module covers too much content and should reduce the content covered.
Please be much clearer with any newly introduced terms. The teaching is not as clear as what Prof. thinks. The flipped classroom concept is not a problem but the content is very convoluted. In the end, I have to refer to external resources to understand.
The flipped classroom format doesn't feel very effective to me
–
Perhaps can provide better proofs for math theory behind PCA
The flipped lectures were doing a disservice to the quality of the lecture because it was always very disengaging and easy to lose interest in the lecture. It really did not work out well.
Nil
A lot of course materials seem very last minute and there was poor coordination between him and his project tutors, with last-minute project presentation schedule being sent out and extremely last-minute emails being sent out with regards to changes in the schedule. The project team also did not consult groups before swapping them away from their originally intended slot and when the group requested for another swap, the tutor Yuchen requested for us to approach the other team directly (which was not what happened when the group was swapped out without prior warning). If the tutor Yuchen is going to relent control to the groups directly and not be a middleman, he should have just sent out a doodle poll and asked groups to fill in their desired slots instead of causing so many last minute schedule conflicts as well as inconsistent workflow by first swapping timeslots without asking and then refusing to swap timeslots after realizing his initial mistake which not only was rude but also resulted in regression issues that affected other teams.
Conduct more help sessions if he's not available for the original help session
Harder concepts can be better explained.
Have more thorough lecture notes. This is so that I don't have to learn from the Internet, where I may get even more confused. Such as having a more indepth Computer Vision notes

F. SELF-REFLECTION

1. When comparing these results to the previous year's results, what areas have shown improvement?
2. What areas remain to be improved and what are the necessary steps / actions to do so?
3. Are there colleagues who could potentially guide me?
4. Are there issues that require departmental or institutional support?