

Machine Learning

(機器學習)

Course Introduction, 09/15/2014

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Four Reasons for NOT Taking the Course (1/4)

Complicated Contents

- from a Taiwanese student taking MIT ML class (translated):
The professor started writing math equations as if he was using some writing accelerator. After class I always felt feeble. The worst part is: I needed to understand the contents as soon as I can. Otherwise I cannot finish the homework and cannot follow up in the next class.
- NTU ML class: designed to be **as good as** the best classes in the world
- similar things will happen to you

If you are not willing to be so **miserable**, ...

Four Reasons for NOT Taking the Course (2/4)

Strict Instructor

- Will you give me a second chance if I copy homework from other people? **NO**.
- Could you let me pass because I will be kicked out by the 1/2 rule? **NO**.
- Will you change my score from *F* to *C*? **NO**.
- How many will pass? **Any**, if necessary.

If you do not like a **strict** instructor, ...

Four Reasons for NOT Taking the Course (3/4)

Huge Loads

- from a student taking ML 2010 (posted on BBS):

lxxxxxx9: 作業光一小題就要我們test 100次?($100 * 10\text{min} = 16\text{hr}$) 唉 反覆檢查許多遍 希望是我的code寫壞了 不然出這作業的人真的很沒良心==

- our class: **four to six** times harder than a normal one in NTU
- around seven homework sets (and a hard final project)
- homework due within two weeks
- even have homework 0 **NOW**
 - already hard
 - though no need to submit

If you do not want to spend **so much time on homework**, ...

Four Reasons for NOT Taking the Course (4/4)

Experimental

- invited by NTU as two of the **Massive Online Open Courses** on NTU-Coursera: **Machine Learning Foundations** and **Machine Learning Techniques**
 - **slides** teaching
 - **Mandarin** teaching
 - **MOOC-synced** teaching (for ML-Foundations)
—<https://class.coursera.org/ntumlone-002>
 - new homework setting: multiple-choice problems **plus** detailed arguments
 - **“recorded”** teaching mode
- always **risky** to be in an experimental class
- you can **choose to only take the online courses instead**

If you do not want be the **“lab rat”**, ...

from a student in ML2013 (final feedback):

人活的好好的，爲什麼一定要修Machine Learning呢？XD 這是一門體驗各種崩潰、絕望的課程，人生能被課程電成這樣可能也就這麼一回

May the Brave Ones Stay

Basic Information

- instructor: Hsuan-Tien Lin (htlin@csie.ntu.edu.tw)
- office hour: after class or by appointment
- course webpage (CEIBA):
<https://ceiba.ntu.edu.tw/1031mlearn>
announcements, homework, reference handouts, etc.
- mailing list: supported by CEIBA
- discussion forum: supported by **ML-Foundations on Coursera**
—<https://class.coursera.org/ntumlone-002>

**update your secondary email address on
CEIBA and register for ML-Foundations**

Enrollment

- at most around 160 in Room 103 of CSIE Building
- readily have 160 now—will check with the department to see if we can slightly increase the size
- new cases: sign up for the univ. lottery first, may add **a few** more in the third week if space allows
- auditing: welcomed (to sit) only if there is an empty chair

Drop as soon as possible! Give your classmates a chance to be miserable.

Teaching Assistants

Sheng-Chi You, Kuan-Hao Huang, Yu-Ping Wu, Yi-An Lin,
Hong-Min Chu, You-Lin Tsou, Chih-Wei Chang

- forum for course/homework material questions: ML-Foundations
- email for grading questions **only**: `m12014ta@csie.ntu.edu.tw`
- TA Hour for more interactive discussions: **to be announced**

To save TA loads, questions about course/homework materials will only be answered on the forum and/or TA hours after the forum starts running.

THE Book

Learning from Data: A Short Course

Y. Abu-Mostafa (Caltech), M. Magdon-Ismael (RPI), H.-T. Lin (NTU)

- idea initiated during 2008
- 5 chapters, closely needed for the first half of the class
- other draft chapters to be finalized, to be used in the second half of the class
- teaching with the book and suggested reading within the book

Getting the Book to Read

- NTU Library: one reserved copy in the shared course material area
- R536: some shared copies to be read in the room
- Chuan-Hwa Book Company: imported some limited copies of the book
 - Ms. Jen Huang (jen@chwa.com.tw) at 0958-008-962
 - may or may not offer group discounts
- Amazon: main selling channel in the US, but can be expensive/slow for international shipping
 - <http://www.amazon.com/gp/product/1600490069>
- Bulk order from U.S.: secondary selling channel, usually takes two weeks to arrive — <http://amlbook.com>
- **If the book is not affordable to you: email me (htlin@csie.ntu.edu.tw) and I'll see how I can help.**

Getting Future Draft Chapters to Read

mechanism: to be announced when needed

Your Privileges

- learn from the **first draft**
- obtain the draft **freely**

Your Responsibilities

- discuss **actively** with me to improve the draft
- **do not distribute the draft**

**enrolling in this class means agreeing to
the items above**

THE Principle

Taking any unfair advantages over other class members is not allowed. It is everyone's responsibility to maximize the level of fairness.

- eating? fine, but no smells and no noise
- sleeping? fine, but no snoring
- cellphone? fine, but silent mode, and speak outside
- ...

applies to instructor, TAs, students

Honesty

NO CHEATING

NO LYING

NO PLAGIARISM

NO PIRATING of THE BOOK

very serious consequences

Grade

- no midterm, no final
- main reference: homework sets, final project

Collaboration and Open-Book

- homework discussions: encouraged
- but fairness?
write the final solutions alone and understand them fully
- references (books, notes, Internet):
consulted, but **not copied from**
- no need to lend/borrow solutions

to maximize fairness (everyone's responsibility),
lending/borrowing not allowed

Collaboration and Open-Book

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Deal? If your classmate wants to borrow homework from you, what do you say?

Homework

- students: justify solutions clearly
- TAs: evaluate solutions fairly
- penalty for late parts:
90% of value for 12-hour late, 80% one-day late, ...

late homework should go to a box in R217

Programming Assignments

- about a third or half of the problems
- any programming language, any platforms
- upload **source code**, otherwise:
10% of value only!
- **no sophisticated packages**

students' responsibility:

ask TA in advance for what can/cannot be used

Important TODOs

- Update your secondary email address on CEIBA!
- Register ML-Foundations on Coursera!
- Sign the policy agreement form at <http://tinyurl.com/ml14policysign>.
- Do homework 0; send emails to TAs or post on Coursera forum for questions.
- If you still want to be added, sign the form first (and try to enroll online) and wait for our decisions later.

May the Brave Ones Stay

Questions?