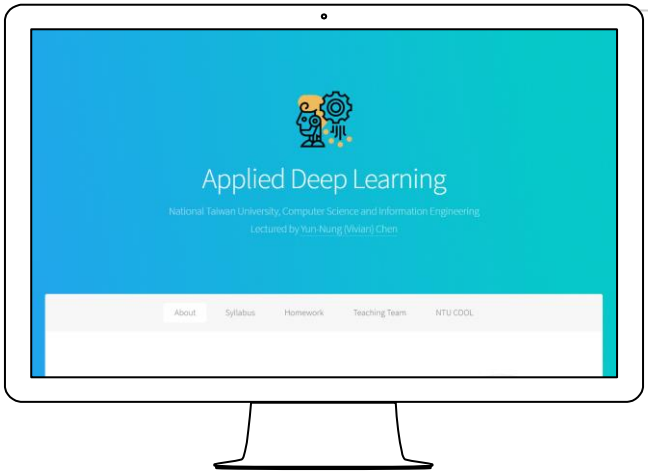
Applied Deep Learning

Course Logistics

February 14nd, 2022 http://adl.miulab.tw

National Taiwan University
國立臺灣大學

Course Logistics



- Instructor: 陳縕儂 Yun-Nung (Vivian) Chen
- Time: Monday 234, 9:10-12:20
- Location: 資103

- Website: http://adl.miulab.tw
- NTU COOL: https://cool.ntu.edu.tw/courses/14072
- Email: adl-ta@csie.ntu.edu.tw
  - To ensure timely response, email title should contain “[ADL2022]”
  - Do NOT send to our personal emails

Always check the up-to-date information from the course website

NTU COOL for Fighting Coronavirus

- NTU COOL
  - Lecture videos
    - Comments anytime
  - Assignment submission (還可以寫 code 呢!)
- Slido QA
  - #ADL2022
- TA Team
  - Forum discussion (preferred)
  - Email QA
  - TA recitation/hours (maybe virtual)

Course Goal

- The students are expected to understand
  1. how deep learning works
  2. how to frame tasks into learning problems
  3. how to use toolkits to implement designed models, and
  4. when and why specific deep learning techniques work for specific problems

Pre-requisites

- Course
  - Required: college-level calculus, linear algebra
  - Preferred: probability, statistics
- Programming
  - proficiency in Python; all assignments will be in Python
  - GitHub; all assignments will be handed in via GitHub
  - Kaggle; all assignments will be submitted to Kaggle

python (tutorial from Stanford)

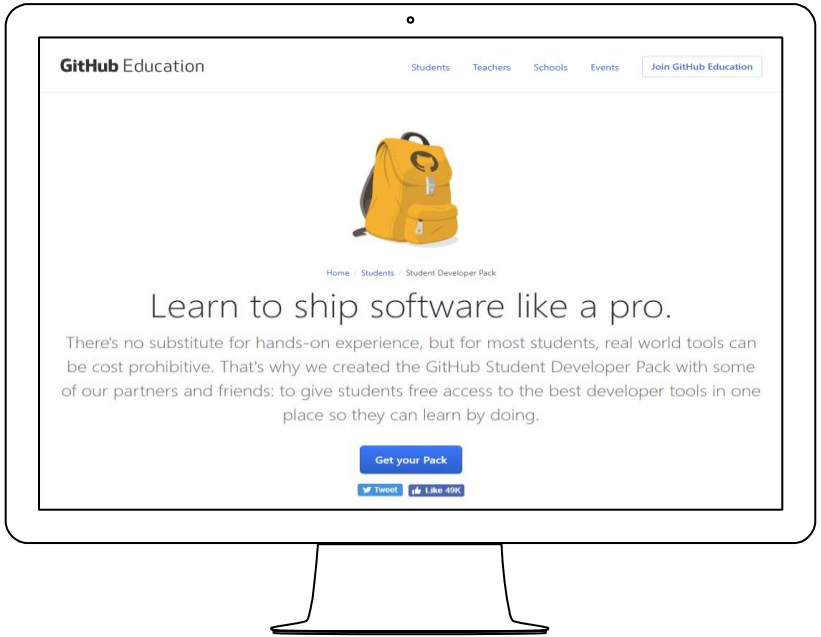
GitHub  (tutorial)

kaggle (website)

Please consider your available resources for taking this course

GitHub Student Pack

- The [student plan](#) provides unlimited private repositories
  - make your assignments private before the due date
  - make them public afterwards



Grading Policy

- 3~4 Individual Assignment: 60%
  - GitHub code w/ README
    - The score is based on coding and the report
    - Bonus points for outstanding performance
    - **Late policy: 25% off per day late afterwards**
- Final Group Project: 35%
  - GitHub code, Project document
    - Bonus points for the outstanding work
  - Final presentation (format TBA)
- Participation: 5%
  - Forum/slido discussion involvement
  - Write-up for the special events

Understanding the difference between “collaboration” and “academic infraction”

Individual Assignments

Automatically find names of people, places, and organizations in text across many languages.

NLG

A1. Sequence Tagging **A2. Transformer / BERT** **A3. Language Generation**

Final Group Project (2~5 persons)

- The final project topic will be announced later
  - Presentation
    - Poster or oral presentation
  - Peer grading
  - Project Report & Code
    - Wrap-up project report
    - GitHub code submission w/ README

The project details will be announced later

Tentative Schedule

Week	Topic	Assignment
1 2022/02/14	Course Logistics, Introduction, NN Basics	A0 – Pytorch Tutorial
2 2022/02/21	Backpropagation, Word Representations, RNN	A1 – Sequence Tagging
2022/02/28	Break	
3 2022/03/07	Word Embeddings, Gating, Attention	
4 2022/03/14	Transformer	
5 2022/03/21	ELMo, BERT	A2 – BERT
6 2022/03/28	More BERT	
7 2022/04/04	Break	
彈性補充	Deep RL, Value-Based RL	A2 – BERT
8 2022/04/11	Midterm Break	
彈性補充	Policy Gradient + Actor-Critic	
9 2022/04/18	Natural Language Generation	A3 – NLG
10 2022/04/25	Beyond Supervised Learning	
11 2022/05/02	Towards Conversational AI	
12 2022/05/09	E2E Conversational AI	Final Project
13 2022/05/16	TBA	
14 2022/05/23	TBA	
15 2022/05/30	Final Project Presentation	

Teaching Assistant Team

Rules

Asking questions is encouraged!!

Any comment or feedback is preferred!! (speed, style, etc)

Attending TA hours!! (details TBA)

Thanks!

Any questions ?

You can find the course information at

- http://adl.miulab.tw
- adl-ta@csie.ntu.edu.tw
- slido: #ADL2022
- YouTube: Vivian NTU MiuLab