Mini-Project

Kaggle & Getting Started

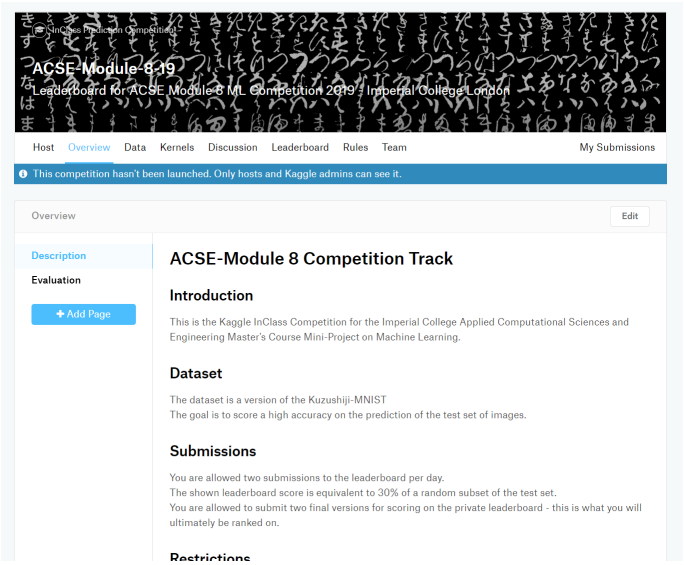
Kaggle.com:

- Register on Kaggle
- Go to competition link

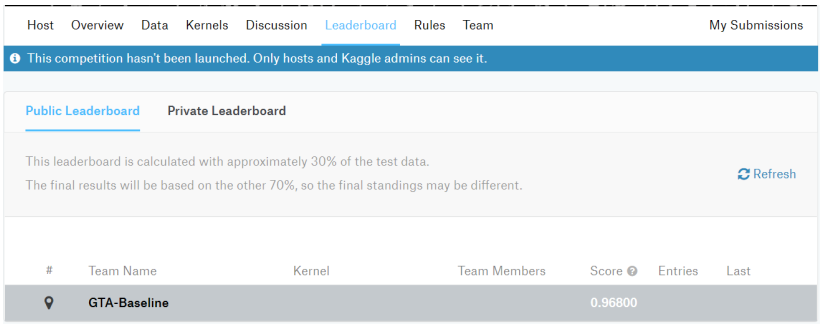
- Team Registration once signed up on Kaggle:

  https://www.kaggle.com/t/3713b8edcaab4ac7ac6045d7353c1aba

https://www.kaggle.com/c/acse-module-8-19



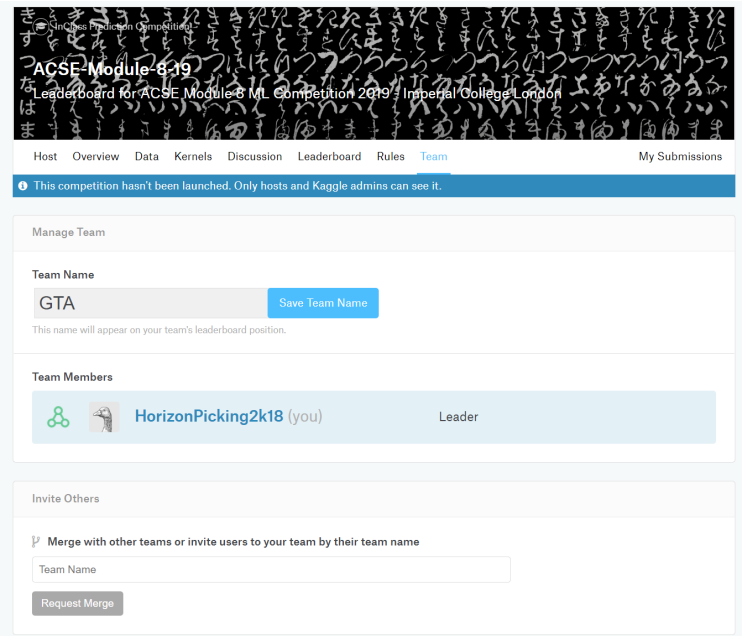
- Leaderboard:
  - Public: Accuracy evaluated on 30% of test set
  - Private: Accuracy evaluated based on other 70% of test set
  - Two Submissions per day per team
  - Try to beat the GTA solution ☺
  - Leaderboard submissions reset at 1 am, but don't work till then
  - Thursday, final two submissions selected for private leaderboard score



Logistics:

- Make team
- At least 1 person/team
- 2 Submissions / day / team
- Use Submissions wisely
- Trust your Cross-validation
- Submissions reset 1 am
  - Don't work till 1 am

- On Thursday:
  - Select best two submissions
  - These two count!
    - -> Private Leaderboard



- Suggestions:
  - Make sure to tick boxes of outline
    - (Report, Reproducibility, Code Sustainability, …)
  - Make sure the basics work:
    - Cross-validation
    - Submission format (.csv file)
    - Plot things where unsure or graph them
    - Build a working model, then expand
  - Things to try:
    - Simple Model + Add More Layers
    - Dropout
    - Batch Normalization
    - Data Augmentation
    - Early Stopping
    - Other Optimizers e.g. RMSProp, Adam, SGD+Momentum
    - Transfer Learning
    - Better Network Architectures (as discussed in course): AlexNet-Style Models
  - You can use existing code, even from web, but expect to be questioned on everything!
  - Consider computational resources e.g. Colab only limited time for training until disconnect