DSTA
Defence Science &
Technology Agency
brainhack
BrainHack 2021

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Schedule

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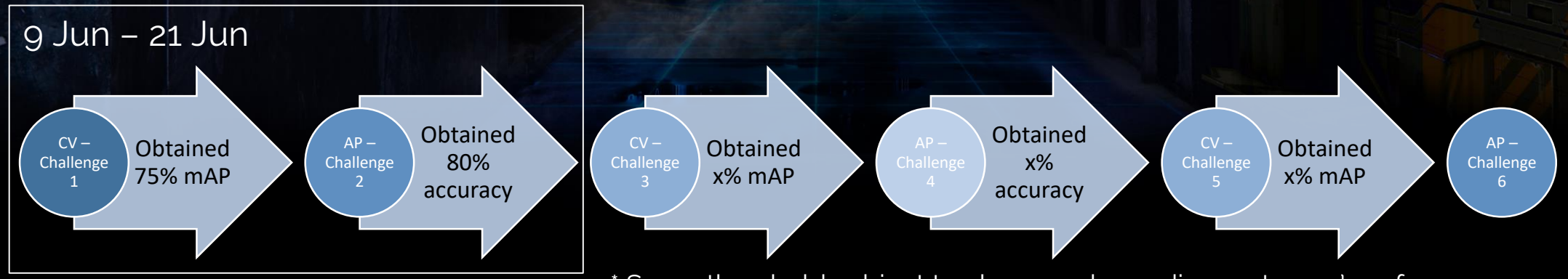
Mon	Tues	Wed	Thurs	Fri	Sat	Sun
7 Jun	8 Jun	9 Jun	10 Jun	11 Jun	12 Jun	13 Jun
Release of training videos		Release of datasets (12nn) + challenge 1 & 2			AMA x2 (1-2pm, 7-8pm)	
14 Jun	15 Jun	16 Jun	17 Jun	18 Jun	19 Jun	20 Jun
		AMA (7-8pm)	AMA (7-8pm)	AMA (7-8pm)		AMA x2 (1-2pm, 5-6pm)
21 Jun	22 Jun	23 Jun	24 Jun	25 Jun	26 Jun	27 Jun
AMA (7-8pm)	Hackathon (9am-6pm each day)		Judging	Presentation (1-6pm)		

Competition

- 2 day hackathon – Online from 9am-6pm
- Stage based competition
  - Only when a certain score* is achieved for a challenge will the datasets for the next challenge be released.
  - Challenges 3 and 4 will only be released earliest on day 1 of hackathon.
  - Challenges 5 and 6 will only be released earliest on day 2 of hackathon.
- Total score will be the sum of scores across all tasks
- Top 8 teams from each category will move on to the presentation round on 25 June.



* Score threshold subject to changes depending on teams' performance.

CV Evaluation Metrics

- Similar to COCO mAP, we will be using an interpolated AP definition for calculation.
- Models will be benchmarked according to **AP@[0.5:0.95], the average AP for IoU from 0.5 to 0.95 with a step size of 0.05**.

Note: We might change the threshold values in order to distinguish between competing results in the most fair manner possible, and in such a way that no participant is unfairly disadvantaged.

CV Submission Format

Json file of COCO format:

```
{ ‘image_id’: img_id,
  ‘category_id’: cat_id,
  ‘bbox’: [left, top, width, height],
  ‘score’: conf }
```

Before uploading, make use of the code in the last cell of the baseline tutorial notebook to check your submission format.

Speech Classification Evaluation Metric

$$Accuracy = \frac{True\ Positive + True\ Negative}{True\ Positive + False\ Positive + False\ Negative + True\ Negative}$$

Speech Classification Submission Format

CSV file of the predictions with no headers in the following format:

1. Column 1 is the audio clip file ID
2. Column 2 is the predicted text

Make use of the provided submission checker script **(speech_submission_checker.py)** to check your submission format before uploading.

How to use?

in your console, type:

>> python speech_submission_checker.py <<your submission file>> <<sample submission file>>

Example:

>> python speech_submission_checker.py my_submission.csv sample_submission_sc.csv

	A	B
1	test_0000.wav	three
2	test_0001.wav	snake
3	test_0002.wav	dog
4	test_0003.wav	go
5	test_0004.wav	stop
6	test_0005.wav	snake
7	test_0006.wav	three
8	test_0007.wav	five
9	test_0008.wav	two
10	test_0011.wav	eight
11	test_0012.wav	one
12	test_0013.wav	one
13	test_0014.wav	down
14	test_0015.wav	go
15	test_0016.wav	one

How to Submit

1) Each team is provided a unique Google Drive folder link to upload their submissions,

   e.g. https://drive.google.com/drive/folders/1jbw1VtFsgC_Y6pX2fWqilRG80qcHcRDe?usp=sharing

2) Ensure your submission follows this specified format:

   "challenge_<CHALLENGE NUMBER>_team_<SUBMISSION NAME>"

3) For resubmissions, replace the existing file with your new submission, the scores will be updated every 30 minute interval.

4) Ensure the files you upload follow the correct structure and file format, erroneous submissions will not be counted.

5) Contact the competition administrators or your mentors on Slack to seek any clarification.

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Submission Example

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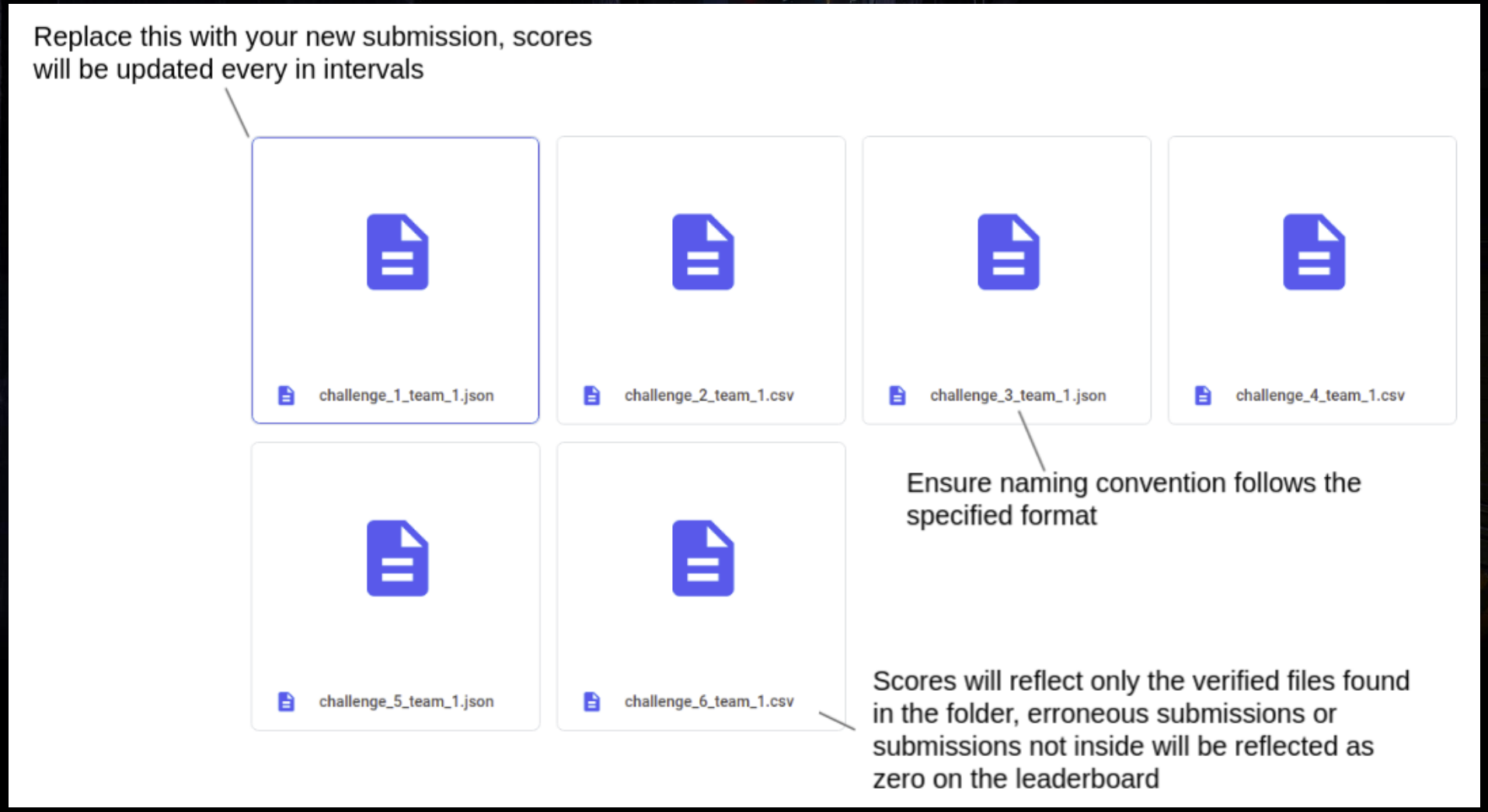

Rules and Regulations

- Top 10 teams from each category would have to submit their source codes and model weights for verification.
- No sharing of codes/models outside of teams
  - You are not allowed to privately share algorithms, codes, models and/or data for the purposes of BrainHack – Today I Learned competition, outside of your team.
- No hand labelling of data
  - You are not allowed to hand label the test data provided to you during the competition period. DSTA reserves the right to test your team's source codes in your submission to verify the authenticity of your entry.
- No merging of teams
  - You are not allowed to merge with other teams.
- DSTA reserves the right to revoke your team's ranking if any of the above rules are violated.

FAQ

- There is no restriction on the programming language used.
- You are allowed to use data from external sources, as long as you cite them accordingly.
- Leaderboard will be released at the end of each day starting 14 June 2021, but you can start submitting your results via your team's unique submission link.

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DEFENDING OUR CYBERSPACE
CYBER DEFENDERS DISCOVERY CAMP

TIL 2019
Today I Learned

CODE_EXP

SEETRUE

SPACECUBE

XR PERIENCE

TECH SHOWCASE

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Thank You