UNSW DATA SCIENCE SOCIETY

HACKATHON

INFORMATION PACK 2019

Welcome

Welcome to UNSW DataSoc's first ever International Hackathon with Tsinghua University's Big Data Association!

First and foremost: thank you for taking the time out to compete! DataSoc is growing at a rapid pace, and it wouldn't be possible without dedicated participants like yourself. We hope we can help you build technical and soft skills and getting some real practical experience wrangling, analysing, and presenting data-driven insights. Regardless of the result, we hope you can learn something and widen your horizons (and networks). Remember that, at the end of the day, this hackathon is a **fun** opportunity to learn -- emphasis on the fun!

This guidebook breaks down the hackathon, outlining the important rules and tips to help you equip yourself for the hack. Please take some time to go through it and have a chat with your team!

The DataSoc team is growing just as fast as our member base, and it's been a busy, busy, BUSY year. We're working through hurdles alongside you - so please feel free to talk to anyone in the team. We're huge advocates for continuous learning and development - so any feedback (especially criticism!) is welcomed and encouraged.

Here's to more international opportunities and exciting times - we're halfway through 2019 now, and we're still just getting started!

Thanks again for your support - HAVE FUN AT THE HACK!

Lots of love,

The DataSoc Team

Theme

The topic for the Hackathon is Medical Data Science. You can find more information about the question and data set in your problem pack, which will be released on the day during the opening.

Top Tips

Words make the world go around

The hackathon will intensify very quickly, with ideas all over the place. Set up a system to record all of your own wildest thoughts, in case they come in useful later.

Effective communication is also essential for keeping track of the precious files you've created. Make a shared platform for storing these that is easy to access for all team members. Set up a GitHub repository for version control before the Hackathon and invite your team to smooth out the process and save time at the beginning of the hack! If anyone gets lost (physically or mentally), it will be easy to catch up again.

It can be easy to get caught up in the work you're doing and forget about the whole problem. We recommend regular team meetings to ensure you're still going in the right direction and understand the relevance of your task.

Teamwork makes the dream work

Whether you're in a team of complete strangers or a ripe old crowd, a hackathon wouldn't be possible without the others. If you haven't met before, we recommend some simple icebreakers (like start-of-term tutorials, but less excruciating) to warm up to each other. Bond over commonalities!

Try delegating tasks according to each individual's strengths. This helps to break up the problem into more manageable parts, saves time and means each section will be completed with more focus and care!

Time flies when you're having fun

Twenty-four hours may sound like a long time, but hackathons are notorious for their time-pressure (and fun). Make a plan for your team's day ahead at the beginning or even beforehand, so you can pace yourselves accordingly. Remember to allocate time for team discussions, meals and rest.

A sample timeline (only a very general guide):

1. Explore the dataset (2.5 hours)
2. Brainstorm and come up with a list of problem statements/hypotheses (1.5 hours)
3. Analyze data to answer research question (12 hours)
4. Create visualizations to explain your findings (3 hours)
5. Compile a report to summarise your findings (2 hours)

Be a well being

Even though everyone is competing to win, remember to look after yourselves. Get to know your teammates or even better, get to know other teams! Take a stroll outside around the campus and get some fresh air - maybe you'll get a fresh idea. A pack of cards might be just what you need between long hours of gruelling coding!

DataSoc

Schedule

Day 1

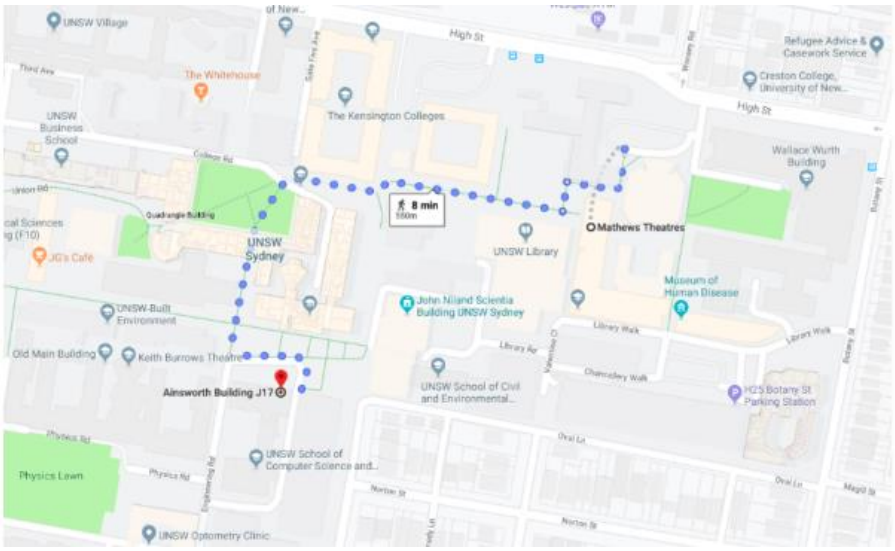
Time	*Event/Activity*	*Location*	*Notes*
9am- 9:30am	Registrations	Ainsworth G03	Tea and coffee provided
9:30am -11am	Opening and Introduction to Problem	Ainsworth G03	Arrive on time to get all the inside info!
11am -1pm	Hackathon working time	Mathews Rooms	
1pm -2pm	Lunch	Mathews Rooms	BBQ
2pm -7pm	Hackathon working time	Mathews Rooms	
7pm -8pm	Dinner	Mathews Rooms	Pizza

Day 2

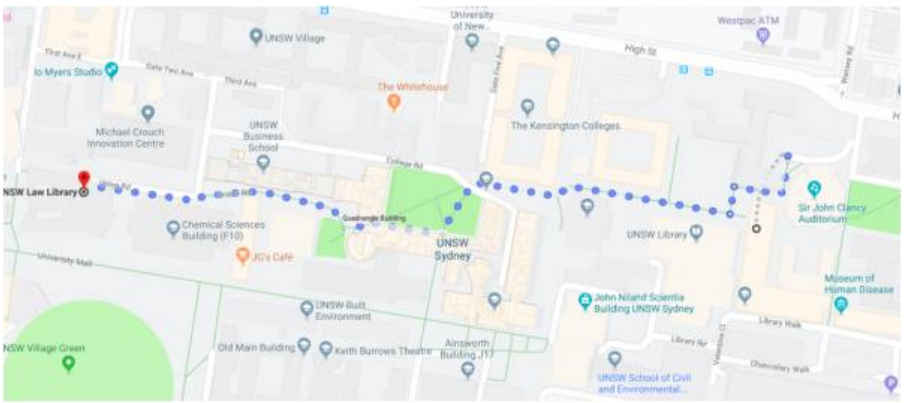
Time	*Event/Activity*	*Location*	*Notes*
7am -8am	Breakfast	Mathews Rooms	
8am -10am	Hackathon working time	Mathews Rooms	
10am -12pm	Presentation prep time for finalists	Mathews Rooms	
12pm -1pm	Lunch	Mathews Rooms	
1pm -3pm	Presentations	Law Theatre G04	
3pm -4pm	Final judging	Law Theatre G04	
4pm -5pm	Closing	Law Theatre G04	

Maps

Registrations (Ainsworth) to Hackathon rooms (Mathews)



Hackathon Rooms (Mathews) to Presentations (Law Theatre)



Evaluation & Marking Criteria

Evaluation Method

For the first stage when the finalists are decided, the teams' solutions will be evaluated through the Kaggle leader board, which measures the precision and recall of the developed predictive model. Teams will be required to submit a 1-2 page report, summarising their insights, strategy, statistical indicators, and methodology - this is supposed to be a summary of what will be in your final presentation, and will be helpful later down the track!

The top 15 teams on the Kaggle leader board will then progress on to the second stage. For the second stage to decide winners, the finalists' solutions will be judged according to several criteria.

Marking Criteria

- Predictive Accuracy (40%) - Accuracy and validity of Prediction
- Code Quality (15%) - Clarity of code and functionality
- Innovation of solution (5%) - Novelty and creativity of solution.
- Answer Quality (25%) - Ability to answer problem/question effectively
- Presentation Quality (15%) - Clarity of delivery and ability for judges to understand the following:
    - Insights drawn
    - Problem at hand
    - Solution proposed
    - Results

FAQs

Q: What should I bring?

Laptops, chargers, headphones, toiletries, water bottles things that will you get you through those 24 hours!

Q: What to wear?

Anything you're comfortable in!

Q: Is the food provided?

Yes, we will provide meals across the 2 days and snacks throughout.

Q: Who are the judges?

Representatives from the Maths and Stats School, and industry representatives from our sponsors!

Q: What tools are we allowed to use?
Anything you would like - Python, R, SAS, Tableau

Final Notes

Thank you for reading through this and coming to our International Hackathon. From the organising team: all the best, and may the best data scientists win!

Due to time and space constraints, we hope you understand and bear with our strict requirements: code must be submitted on time **(10am on Sunday July 21st)**, and only the top-ranking teams on Kaggle will be able to present. The presentation will be **6 minutes + 2 minutes Q&A**.

If you need any help, then please email us at hello@unswdata.com - or come up to any of the organising team on the day!

We'd love to hear your feedback, as it will help us shape our flagship Hackathon for the upcoming years.

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