UGRL 2016 Interview Preparation

# General

* Face-to-face interview – 15 mins
* People
  + Katie Livesly - Administrator for UGRL
  + Dan Morgan - Director of UG education in SEE
  + Louise Waite - Director of Student Education in School of Geog.

# Section 1: Introductory questions

**Tell us a little bit about yourself**

* First year UG studying BSc MCS – around 6 months, enjoying course
* From Singapore – have lived there most of my life, lived in Australia for 4 years from years 6-9. I finished High School in Singapore in the Australian International School where I continued with the Australian curriculum. (Depends)
* *The Leeds story – and interest in meteorology from Australia.*
* *Fugro and work experience – year 10*
* *Why Leeds? – After my A-level equiv, I was deciding on to foster my interests in meteorology, and found out through research that Leeds Uni is the ideal place to study this course. I then visited the campus as part of my family holiday in the UK where I was shown around SEE by Dr Phil Murphy, and taken around campus by a student, and I was inspired by the environment here – so when I went back to Singapore, I applied almost immediately.*

**Why do you want to do a UGRL research placement?**

Train to embrace myself in the research group in Leeds – SEE – in particular, a related field in meteorological phenomena such as severe weather.

Content – severe weather interests me and see if I want to pursue the field

Develop research skills - how to do research in the real world, and whether it is a viable career option, choices in dissertation, 2nd year modules prep, PG studies etc.

This serves as a head start to research engagement in the real world – ideas and inspiration looking ahead into future…

Why leadership?

* Having taken up some leadership positions – course rep and library rep, and IBC Taiwan/VBS etc., I feel that I could still nurture these skills and to learn more.
* So to have leadership training courses alongside research is great as I can build both skills concurrently – useful during work life.
* Teamwork necessary when doing research – I may have to lead a team even in a research setting.

# Section 2: More specific questions for the project

**What makes you/Why did you specifically choose this project?**

* Fascination in severe thunderstorms – coming from tropics in Singapore, I have seen many severe, intense rain and lightning storms, especially in afternoon.
* Experiencing larger scale phenomena, in particular, Sumatra Squalls, which are periods of widespread thundery showers in the early hours. These multi-cell lines excite me and wake me up well before dawn just to observe them in the dark.
* I have visited Indonesia several times, and one of my visits involved helping to build a church in a remote island as part of my volunteer work (part of CV).
* It would be very meaningful and fascinating for me to learn about and understand the interplay of factors that produce such severe weather:
* Understanding small scale (sea-breeze) followed by large-scale processes (MJO) to understand forecasting processes.
* Knowledge incorporated into forecast and climate models to improve forecasting, especially in the tropics.
* Weather forecasting also hard in tropics – in Singapore, the rule of thumb is that weather forecast is 10% accurate. It would be amazing to be involved in discovering new knowledge as ways to improve tropical weather forecasting!
* Compared to mid-latitudes where weather systems produced by fronts and distinct air mass boundaries enable more accurate forecasting
* Unlike tropics, where spatial gradients are weak – what determines thunderstorms are sea breeze, and mountains, influenced by the larger-scale MJO. Unfortunately, models cannot resolve small-scale processes, which is where the research comes in handy.

**What outcomes do you expect? (Or a continuation of the previous Q)**

* I am excited to analyse surface weather station data as evidence to verify the results of model simulations by Dr Cathryn Birch – and it is going to be a wonderful experience to be involved in current, credible research within the SEE here at University that will form the basis of a peer-reviewed journal article.
* Puts the introductory meteorology concepts from SOEE 1400 into practice and extending beyond (i.e. understanding how small-scale sea-breeze can impact larger-scale MJO spatiotemporal variability is crucial to understanding of atmosphere and simulation of climate models.
* Overall, this will be not only excellent preparation from second year modules, but also will provide insight for dissertation, PG studies, and career!

# Section 3: Skills and Tasks

**Based on the tasks you will undertake, what skills do you think you will require and be able to develop over the placement?**

* I will need analytical skills as part of the scholarship – in the areas of interest, I have done analytical work since high school and even last semester, in Blencathra field trip, I further developed skills in data analysis, and I can use these skills where analysis of qualitative and quantitative data.
* Programming skills that I will develop in MATLAB since this software is needed to conduct the data analysis. Mention initiative to self-learn. In the past, I have also done programming on VB – multiple choice quiz, vending machine. Programming part should be something I learn and handle.
* Opportunity to lead group in Water Pollution – for group assignment – organising group meetings, presentation flow etc.
* Spatial distribution of rainfall in SG presentation.
* Building climatology using observations and following investigations – may need to collaborate with group members – so communication and teamwork skills will be vital complemented with research skills.
* *The following year, there is the opportunity to develop a second research project related to first using weather/climate models*
* So I’ll need to ensure that I am engaged with current research and to immerse myself in it
* Creative problem solving skills will be required based on any knowledge obtained to be able to formulate a potential research investigation question. By 2nd year, I hope to develop aspects of a project independently based on Dr Cathryn Birch’s current research depending on which areas still need to be researched more depending on the progress this year. I have recently also approached Dr Cathryn Birch to discuss more on this aspect. (Creative: Improve tropical weather forecasting)
* Intuitive knowledge and Problem solving – to identify suitable stations to analyse data on Indonesian islands.

# Section 4: Personal Development and Suitability

**What are you expecting in terms of your personal development? – unlikely.**

* As I mentioned earlier, I would firstly be able to obtain programming skills, dissertation and career insights etc.
* Moreover, I will have time to get engaged in current research and to improve communication and networking skills through group lunches and group meetings where recent research is presented.
* It could give me insight into new research ideas following the project, along with the capacity to expand knowledge and ideas well beyond my course.
* Although the proposal didn’t mention this, it could get me to explore other factors such as El Nino and La Nina, climate change – and how these could also affect severe weather on a large scale in the future

**How do you see yourself as suitable for the project (i.e. in terms of qualifications etc.)?**

* I'm studying BSc MCS
* I've got a strong background in maths, and I'm taking the physics module to strengthen my overall physics background.
* MATLAB – head start to the computer skills module next year. I have taken initiative to complete a few basic tutorials on creating simple plots, matrices, and functions
* I am excited to learn how to use this software for modelling purposes, and thereafter to apply this in improving forecasts in the tropics.
* With communication, I have demonstrated competency in both written and oral communication skills:
* Presentation on Spatial Distribution of Rainfall in Singapore last Semester
* Water Pollution and Management Report – both first class grades.

# Section 5 – Questions to ask the panel

1. **Currently, I am on the 3-year BSc course, does the UGRL scholarship open possibilities for further research opportunities or internships, within the Uni (e.g. ICAS), or beyond in metorological organisations such as MetOffice and RMet.**

* **Shows I want to explore opportunities UGRL opens up to.**

STAR – for work and life experience – where “tell us a bit about yourself”

* Add work experience from CV
* Concise – 15 mins – so not much detail.