UGRL 2016 Interview Preparation (Ruff)

# 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.
* Tasks:
* See Cathryn Birch
* Practice and see Careers Centre + resources for general interview content

# Questions possible

## Section 1 – General and project overview

**Tell us a little bit about yourself**

* First year UG studying BSc MCS
* From Singapore – have lived there most of my life, but also lived in Boston for a year when I was little, and 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.

**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.
* And maybe talk about experiences of NE surges and Sumatra Squalls (morning – woke me up at 4am) – multicell lines.
* I have visited Indonesia several times too for holiday, 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 the interplay of elements that produce such severe weather:
* Madden-Julian Oscillation (MJO) that propagates east towards Pacific (30-60 day period and enhanced and surpressed phases which increases and decreases rainfall at various phases respectively) – MSS 2016 – can modulate strength of cyclone and monsoon
* Orographic lift from mountains
* Strong solar heat and high moisture from surrounding oceans.
* Sea breeze in day vs. land breeze at night – what affects these?
* Sea breezes are apparently responsible for initiating new storms within MJO cluster (and Singapore!)
* Models have simulated processes that show interplay of sea breeze and large-scale MJO
* Different scale of factors (macro MJO, micro sea breeze)

**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 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.
* Weather forecasting also hard in tropics – in Singapore, the rule of thumb is that weather forecast is 10% accurate. It would be amazing if I could be involved in discovering a way to improve tropical weather forecasting!
* Overall, this will be not only excellent preparation from second year modules, but also will provide insight for dissertation, PG studies, and career!

## Section 2 – 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?**

* Intuitive knowledge and Problem solving – to identify suitable stations to analyse data on Indonesian islands
* Following this, analytical skills along with programming skills that I will develop in Matlab since this software is needed to conduct the data analysis. Mention initiative to self-learn.
* 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.

## Section 3 – personal development and suitability

**What are you expecting in terms of your personal development**

* 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 (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.
* If they ask about why I take physics again, explain Australian system did not cover a substantial portion of the syllabus so I needed to ensure I have a good grounding on that for year 2 onwards.

*Next: LFL skills!*

**Reserve a few questions to ask the panel.**

1. **Do people who did these placements base dissertation studies on these/do PG studies (masters and PHD).**
2. **Logistics – where would I be staying – accommodation/whether Im living here in Uni.**