

# NYSF Report

Miguel Guthridge

## January 16

On the 16<sup>th</sup> of January, I embarked on the most amazing, life changing experience I have ever had: The National Youth Science Forum, Session C. When I met up with Riley, Mariah, and Pat at Port Macquarie airport, none of us had any idea what to expect. We checked in to our flight with QANTAS and went through security. After we had waited at the gate for five minutes, we were called back urgently to the Virgin Australia check-in counter. Apparently, we were booked to travel with both QANTAS and Virgin. After this was sorted out, we went back through security and boarded the flight. The feeling of walking out onto the tarmac was one of the most exhilarating of my life.

After arriving at Sydney Airport, we promptly got lost multiple times, before realising that we weren't even in the right terminal. Fortunately, after changing terminals, we soon found Staffie Ayoka. There were a few hours of waiting around and then the bus came to pick us up. After a quick briefing, we spent most of the bus trip getting to know each other. As the bus neared Canberra, there was a very strong breeze.

At Burgman Collage, we had our first dinner together as a (huge) group of 200 students. Although the food wasn't amazing (it never was), I really enjoyed the opportunity to meet everyone, including my buddy, Harry.

After dinner, we assembled on the (beautiful) Burgy Lawn, scrambling to cover the supposed "GRAAAASSSS" that the Staffies could apparently see (we couldn't). This was for the first of many briefings. At these meetings, we learnt many unexpectedly important things about the NYSF, such as the importance of not getting "Beached Az" (which is apparently another way of saying lost or left behind). The Staffies did an amazing job of making these huge amounts of usually dull and boring information become lively and memorable.

After the briefing we met in our interest groups and met the people we would be spending most of our time with. Here we made up our group chants, which we used to show off how much more enthusiastic our group was compared to the others (which didn't end up happening because they all got told to be enthusiastic as well).

Soon after this, we went to our floor groups and met with them, and before we knew it, it was our own rooms time.

The rooms. They need air conditioning. Badly. It was so hot that for the first few nights it was really difficult to get to sleep, although I acclimatised eventually.

## January 17

On this day, we travelled to Parliament House for the opening ceremony. I found this event rather dull, but it wasn't overly long, so it's fine. After the opening ceremony, we had a quick morning tea, then we split into groups to tour the building. The energy of the guide who was explaining everything to us made the tour extremely engaging and enjoyable. After the tour, we explored the role of scientists in parliament, and their impact through enquiries on many bills involving science. I really enjoyed the way in which we were allowed to creatively express our opinions in a mock senate session, and I feel like I learnt a lot.

*Note that beyond this point, I can't really remember any specific times, so I'll just use subtitles for the actual events. These may be out of order.*

### Science Quiz

This was a great way for us to get to know our interest groups and develop ourselves as a team. The Staffies really made this event enjoyable through their quirky energetic behaviour; I distinctly recall Staffie Anu eating the piece of paper that one of our team's incorrect answers was written on, before commenting that it "tasted like disappointment". I really enjoyed this.

### Critical thinking workshop

The presenter for this session was really engaging, and I liked how our knowledge of how to think critically was gradually built up from scratch, leading to some example critical thinking questions to practice at the end.

### Think Big Presentation

This was so inspiring. I liked how it was unofficially named *Think Bigger*, and if you ask me, that should be its actual name. It acted as a great way to inspire us all to leave a lasting positive impact on the world.

### Swing Dancing

Dancing was never my strong point, but the instructors were extremely talented at explaining everything, so over the course of the night, I progressed from "completely hopeless" to "almost completely hopeless". I'm sure that for those of us who are more coordinated, this would have been easy, but looking on the bright side, I had a great time and I guess that's all that matters.

### Stem Visit No. 1 – Artificial Intelligence and Angry Birds

Although this was quite an enjoyable experience, this visit felt a little un-prepared for, and as a result, I feel that I didn't get as much out of it as I would have liked. As well as this, the explanation wasn't particularly engaging, which meant that we didn't fully understand why we were making an AI play Angry Birds in the first place.

### Elective Visit No. 1 – I can't remember what it was called...

In this elective visit, we visited a centre that works in preserving all kinds of things, from paintings and photographs, to a WW2 German Missile. Although this was far from my first choice, I found that I really enjoyed the explanations for all of the chemical processes for preserving the various artefacts, and I liked the historical component of it (which came as a surprise because I usually really don't like history). Although this was amongst the most enjoyable visits for me, I get the feeling that some others may not have enjoyed it as much as I did.

### Stem Visit No. 2 – NCI and the Rajin Supercomputer

This visit was definitely the best one of the entire session! I really enjoyed the huge number of statistics and facts that the guides gave us regarding the supercomputer and how it functions. As well as this, the guides' willingness to answer all of our questions, no matter how stupid, meant that we could all learn things that interested us. The subsequent section where we learnt about the applications to science and data analysis that the supercomputer was used for wasn't quite as amazing, but I still really enjoyed it. I loved how new technology such as VR was being utilised to display statistics in imaginative ways. The final section of this visit explained the software side of the

supercomputer. I felt that the way in which this (extremely complex) topic was explained made it accessible to everyone, but also enjoyed the presenter's willingness to address higher-level concepts to those of us who asked more complex questions whilst still keeping the explanations simple and to the point.

### Elective visit No 2 – Environmental Hub

This visit also felt quite underprepared for. It seemed that the presenters just rattled off information in a dull monotone, and this made even the interesting parts of the visit seem dull.

### Partners' Day Presentations

Most of the presentations made on this day were quite good. I particularly enjoyed the ones made by UQ, ANU, CSIRO, UNSW, and CSL. I felt that these presentations contained information we could actually use. Most of the other presentations were rather empty and unmemorable (hence me not being able to remember them), however one of the most outstanding presentations stood out for all the wrong reasons. The presenter for The University of Melbourne did not do a good job at explaining why his university stood out from the rest, and instead spent all his time discussing his life achievements, the majority of which had little to no connection with UniMelb. Other than that presentation however, it was quite good.

### Partners' Day – Speed date a scientist

This section was varied. Some of the people who we spent time with gave very interesting and insightful answers, which I'm sure will help me make informed decisions about my future soon, but others simply weren't good communicators. As well as this, in the group I sat with ended up getting to speed date 5 people from the defence force, which meant I missed out on possibly useful information from other scientists, as by the third person from the defence force, we had all found out all we needed to know. Overall this was a useful experience, which I believe will benefit me in the years to come.

### Partners' Day – The bit where we went to all the stalls and asked questions

I found this part of Partners' Day the most rewarding, as I was able to ask all the questions that I needed answers for and was able to efficiently compare and contrast all of my options for tertiary education. Also, there was so much free stuff which was nice.

### STEM+ Talk – Gamification

This presentation was definitely another one of my favourites. I enjoyed how after the key concepts were explained to us, we were given time to apply our learning to create a gamified system to help solve a problem. I really like how open-ended our challenge was, allowing us to use our own knowledge and interests to problem solve.

### STEM+ Visit – National Film and Sound Archive

This visit seemed very un-prepared for. I found it quite unengaging and this was not helped by the convoluted and verbose methods that the presenters used to explain everything.

### STEM+ Presentation

In this event, each group was given time to make a short presentation on what we learnt at the STEM+ Visit. This was a great opportunity to creatively convey what we had learned, but because of the poor presentation of our actual STEM+ visit, we didn't have

much useful information to present. It was still extremely fun though, and I enjoyed watching the other groups' presentations.

### Science Disco

As I said before, I'm really not good at dancing, but for the 30 minutes before I gave up and watched movies with the other non-dancers, I had a good time. I also enjoyed the opportunity to relax while watching movies after I gave up trying to dance.

### Rotary and Alumni Evening

This event didn't really seem to serve much of a purpose. Most of its contents could have been moved to various other events.

### Rotarian Homestay

I spent most of my time on this day sleeping, watching movies, doing washing and eating. I really appreciated the air conditioning and the delicious food. It was placed at just the right time, and the short time of rest that it gave me was definitely needed.

### Science Dinner

I enjoyed this event, but the keynote speech was rather dry. Nearing the end of his speech, everybody was noticeably fidgeting and bored. The food was delicious though.

### Where to from here Presentation

This presentation was very informative. Afterwards, I felt I knew a lot more about the follow-up programs for NYSF, including Next Step, and the international programs.

### Closing Ceremony

The fact that this wasn't enjoyable was entirely due to everyone's sadness at the NYSF being over, which simply goes to show how amazing an experience the program was as a whole.

## The Verdict

As I am sure I have said too many times, the National Youth Science Forum was one of the most amazing, life-changing experience of my life. I will never be able to put into words how much I enjoyed this experience, or how much I appreciated the opportunity to spend two weeks with 200 like-minded nerds. As the saying goes, *I was with my people*. Even though there were numerous aspects of the program that could have been improved – the food was underwhelming for the most part, and what the collage rooms lacked in air conditioning, they made up for in noisy fans which didn't seem to cool the room down at all – these pitfalls and shortcomings were petty compared to the wonderful experiences that I would never have gained, and if I was ever given the opportunity to relive two weeks of my life, I would choose the NYSF over everything.