NEWS FROM COMPUTER SCIENCE AND ENGINEERING

βETA

Veritas Liberabit Vos

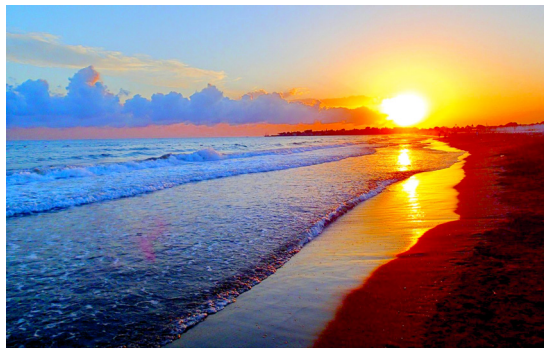# What to Do with Your Summer If You Don't Have an Internship

Besides bingeing on TV and playing games

Are you a student who experienced a bit of bad luck with tech companies? Are you a student who considered themselves too unqualified to apply or just too lazy? Unless you have a vacation planned, you might be thinking that you don't know what to do with your summer. 12 class-less weeks with no one telling you what to do.

Some of you may want to just play games all day. Why not? You've worked hard during the 13 weeks of semester to earn 12 weeks of break. But what if you wanted to do something more productive with your time? I have compiled a few things that you could spend some time doing, something that may hopefully help you score that internship next year.

You could learn a programming language. This is a rather simple one but can be super useful for jobs that require a thorough understanding of a specific language. This would involve looking online for documentation to get a grasp of the syntax and semantics. I've found online courses run by Coursera, OpenLearning, or edX are helpful if you want a structured approach. If you are looking to get a job out of this, go for modern languages like Python or Ruby; if you're looking for an interesting challenge, try go for a language of a different paradigm like a functional programming language like Haskell.

If you want to get your hands dirty into a lengthy project, try building web applications. Doing COMP2041 gives you a strong grasp of CGI and HTTP but rather than programming from scratch, it is much safer and more convenient to work from an open-source back-end framework and learning how to use these effectively is useful if you want to pursue this field. Frameworks like Django, Flask, and Ruby on Rails are commonly used in the industry and very versatile to your needs. Not only will you learn how to build web apps but you will also get a good idea of how to manage medium-scale projects. Projects can be pretty interesting such as a social networking website or a timetable generator. It might also be worth looking at front-end frameworks (Bootstrap is not the only one) and how to use them to create sleek and unique designs and interfaces to flex your creative muscles.

If you're a first year whose computing knowledge extends to just COMP1917 and COMP1927 (and perhaps COMP2041), you may want to practise your algorithmic skills with some programming challenges. This will help you gain confidence in programming in the real world and develop skills that will help you ace interviews. Websites like Project Euler and PKU JudgeOnline can provide you with good questions and answers. With these skills, you may also find yourself wanting to enter programming competitions. Challenging yourself keeps your brain active and not becoming mush by the start of the next semester.

Doing any of these will provide you with an edge as you will have learnt stuff that you wouldn't in the classroom and you may also have something to talk about in detail in an interview. Committing time to a project or learning a new skill is also just fulfilling and stimulating.
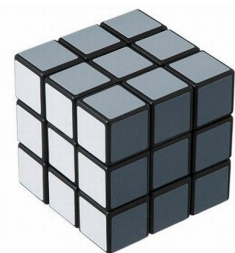
MICHAEL NAM LEE

FAQ, University

Advanced Operating Systems: FAQ

It's been twelve weeks, but finally, the battle with the Advanced Operating Systems is over. And yes, the struggle is real. Yes, some degree of peppering is required for your angus. And yes, the t-shirt is worth it (there's a new one coming - you'll see...).

We're writing today to tell you more about the course. Clear up some misconceptions. Maybe convince you to do it. Either way, here's a few FAQs, tips and tricks:

Is Advanced Operating Systems is a hard course?
(Oliver) Truthfully, no. The main thing you have to do is:
Manage your time. That's the hard part. You'll need a lot of time on it - not for implementation - but for bug finding. Lots of bug finding. And printing wtf in your code.
Plan ahead. We read the milestones ahead, so we knew what to pepper our angus for. We setup things in advance, and it paid off.
Design. It's COMP2911 done properly! Poor design decisions early means re-fuck-toring around later.
Bear in mind the lessons of (Extended) Operating Systems.
It wasn't hard. Just sapped a lot of time and energy out of you.

Did you get a lot out of it?
(Oliver) I would say so. Not content wise though - more about project stuff and bug fixing. The lectures are only tangentially related to the project.

I hear of people pulling all-nighters. How often is this?
(Will) Not all that often. It is possible (and important) to pace yourself properly to avoid those all-nighters the day before things are due. As mentioned above, reading the milestones in advance pays off.
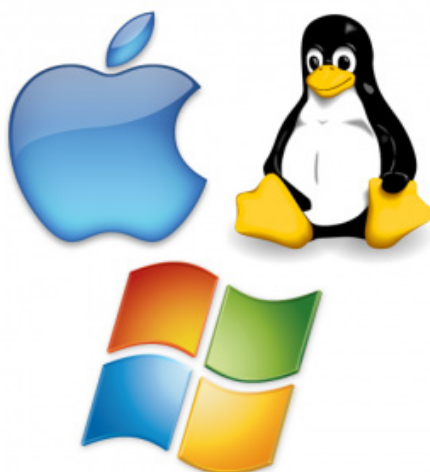
How do I get marks?
(Will) Go drinking with Gernot.

Should I go to the lectures if they're not related to the project?
(Will) Yes! They're really interesting, and there are a lot of guest lecturers with really cool backgrounds and really cool research projects. NICTA also seems to be permanently looking for people to come and research with them - there's a reason the course is known as "Gernot's PhD trap"...

Is it possible to do the course with other subjects?
(Will) That depends on what those other subjects are. I did it with

COMP4920 and two general educations, and suffice to say there was never a dull moment. Trying to do it with three other COMP courses is not a great idea, but you also don't have to make it your only subject that semester.

Is there a secret Freemasons-style club for people who have finished the course?

(Will) No ;)

Is there somewhere I can get help if I'm stuck?
(Will) Yes! The course uses Piazza, and students often help out other students with problems and questions there. If your problem is a bit more serious, there are daily consultations in Oud, where some incredibly smart and experienced tutors will do their best to help you. And these consultations aren't like most consultations on Computing: plenty of people attend them and they can be a great place to hang out and learn some tangentially interesting and useful stuff.

I'm picking between COMPXXXX and AOS. Which should I pick?
(Will) AOS.

I'm scared.
(Will) That's a healthy attitude to have, and it's OK - there is plenty of guidance for first-timers, and if you're feeling in over your head, just remember that everyone else probably feels the same.

Tips and tricks for the future:
(Oliver) Here are some things you should know in case you want to do it in the future.
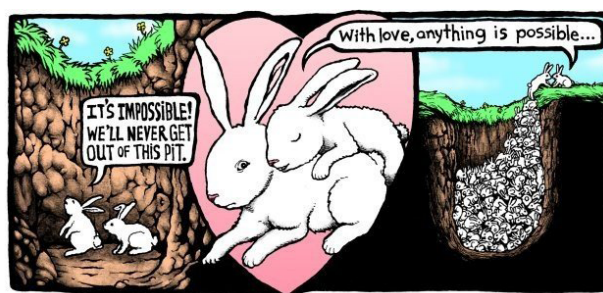Use coroutines.
Use gotos for errors. Yes, gotos. One of the only times a velociraptor won't get you.
RTFM. It'll make you realise things.
Test your poop, before you wreck your poop.
Flush the cache! seL4_ARM_Unify_Instruction.

OLIVER TAN
WILL KORTELAND

CSE SOCIETY

2014 Exec and Heads: Your Experience

CSESoc Exec and Heads give a final word in the last Beta of the year

Vincent Wong - Co-President
From negotiating deals with Chinese manufacturing plants to presenting a robotics workshop to a class of Year 8 students in Moruya, the opportunities you get in CSESoc are endless. This was a great year for CSESoc and without my lovely exec and heads team backing me, I would have never be able to complete my job. Being a co-president is definitely one of the highlights in my life, and I love seeing how tight-knitted the CSESoc family is. I look forward to a new chapter in CSESoc and want to thank you all for contributing your part to CSESoc 2014! :)
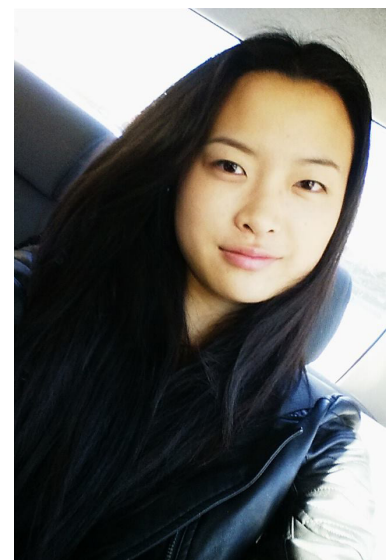
Pierre Estephan - Co-President
Being Co-President this year was an absolute pleasure. I learnt a lot about leadership and running a society as large as CSESoc, and can honestly say that I've never been around a community as amazing as you guys. There are so many people in CSE that are so friendly and willing to give up their time to help out others; I hear a lot about other societies and other courses in other universities and everyone tells me how different and amazing a community CSE is. Thank you guys for giving me the opportunity to lead the society for this year, it's been an amazing year. Here's to the future of CSESoc :)

Matthew Moss - Treasurer
Managed to funnel $17,200 into various executives accounts, all in all I would call it a successful year, as we still broke even.

Bark - Arc Delegate

Lavender Chan - Assistant Arc Delegate
I really enjoyed helping out the Arc Delegate this year, although it's kind of shameful that I was replaced by a barcode scanner.

CSE Society
2014 Exec and Heads: Your Experience - contd.

Caroline Cham - Secretary

What an awesome year for CSESoc. I'm so honoured to have been part of such an amazing team this year. Thanks for letting me be your Secretary, it was a privilege to send out the soc announces every week to notify you of our exciting social and tech events and workshops, as well as cool career opportunities (sorry for the spam! :P) Being part of the CSESoc community has been so welcoming, fun, and helpful, and I hope to see it continue to grow next year. You've been a wonderful society, I hope this year has been as great for you as it has been for me!
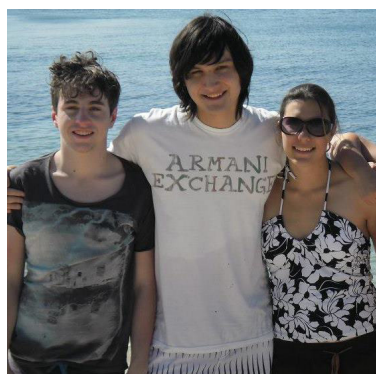
Angelo Tamayo - Beta Head

This year as Beta Head was quite challenging, but very rewarding. I really enjoyed working with the Beta Team and and very happy with the feedback given for each Beta. I am especially grateful to a few people from the Beta Team (you know who you are) for helping me out tremendously, who would even help me out with just a few hours notice when I really needed another article or two. My biggest wish for Beta is that these awesome editions will inspire readers to give writing a go and that the Team can grow more. Cool Kid Tip #100: CSESoc Rocks! Truly.

Davina Adisusila - Publicity Head

Witnessing the sheer talent and creativity my team members displayed this year with their promotion material blew me away. I just wanted to say a big thanks to my team!

Publicity this year was also involved in the fun rollercoaster ride of creating new merchandise, including the official hoodies. I am thrilled with the end result and how they were received by the students. All in all, an amazing year in CSESoc with the 2014 team and I encourage you, yes, you, reading this, to get involved in the society any way you can!

Karl Krauth - Tech Head

I really enjoyed being tech head!

2014 Exec and Heads: Your Experience - contd.

Oliver Tan - Social Co-Head

My year so far has involved:
- organising a kick ass camp for first years
- getting greasy, sexy hands from sausages
- eating free baked goods
- asking horrific questions at trivia
- watching love made on twister boards
- laughing at USYD people ice skating
- peppering Stepan Strijakov for fun

And you know what? It's been a good ride. CSESoc has a great community, and what better way to make it more fun with friends by making kick ass events? Social's a rewarding place to be, and we've hoped you had fun at our events.

Special thanks to the regular volunteers: Sav, Will Korteland, David Sison, Jake Bloom, Stepan Strijakov, John Wiseheart and my partner Lucas Pickup.

Lucas Pickup - Social Co-Head

Oliver pretty much said it all. As social heads you get this amazing feeling of driving the core of CSESoc, the community. Every event happens because you want people to have fun and hang out with friends. Along the way you get to meet so many different faces throughout the society. Being the ones running the events means you're at pretty much every event always chilling asking sure things go smoothly. Just. Plain. Amazing.

And as Olivers mentioned our team is the most crucial part in making these things happen, no way could we do it ourselves. Undying gratitude to all the people I roped into BBQ washing up.

Vincent Tran - Dev Co-Head

I had kind of a crazy year this year with being both one of the Dev Heads for CSESoc and being a producer for CSE Revue. There was a lot of stuff we wanted to get done at the start of the year, and hey, we ended up getting everything done. Granted, it was really behind schedule, but I'm really proud of the new CSESoc website and Bark. My biggest regret is not being able to do more in second semester due to other commitments. I'd like to thank John Wiseheart for covering my ass for the last 12 weeks :)

CSE Society
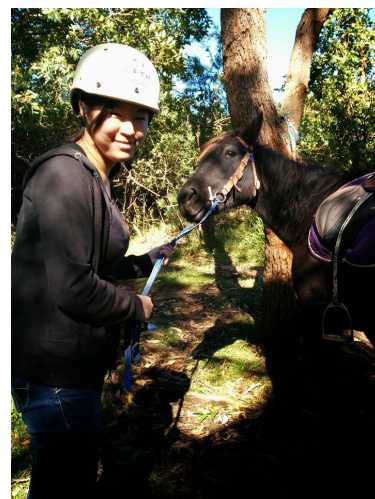
2014 Exec and Heads: Your Experience - contd.

John Wiseheart - Dev Co-Head
Dev did what we wanted to get done, and had quite a bit of fun along the way!

Vanessa Ung - High School Co-Head
As in last year, we successfully held the Summer and Winter Workshops for high school students. We had a great turnout, with over 200 students turning up to them in total!

New to this year, we also received the CS4HS grant from Google (oooooh, how exciting) in conjunction with the School of CSE. With these funds, a number of people on the HS team went on a roadtrip to numerous high schools and delivered workshops for teachers. All in all, it was a great year and I'm looking forward to the successes of HS in the future :)
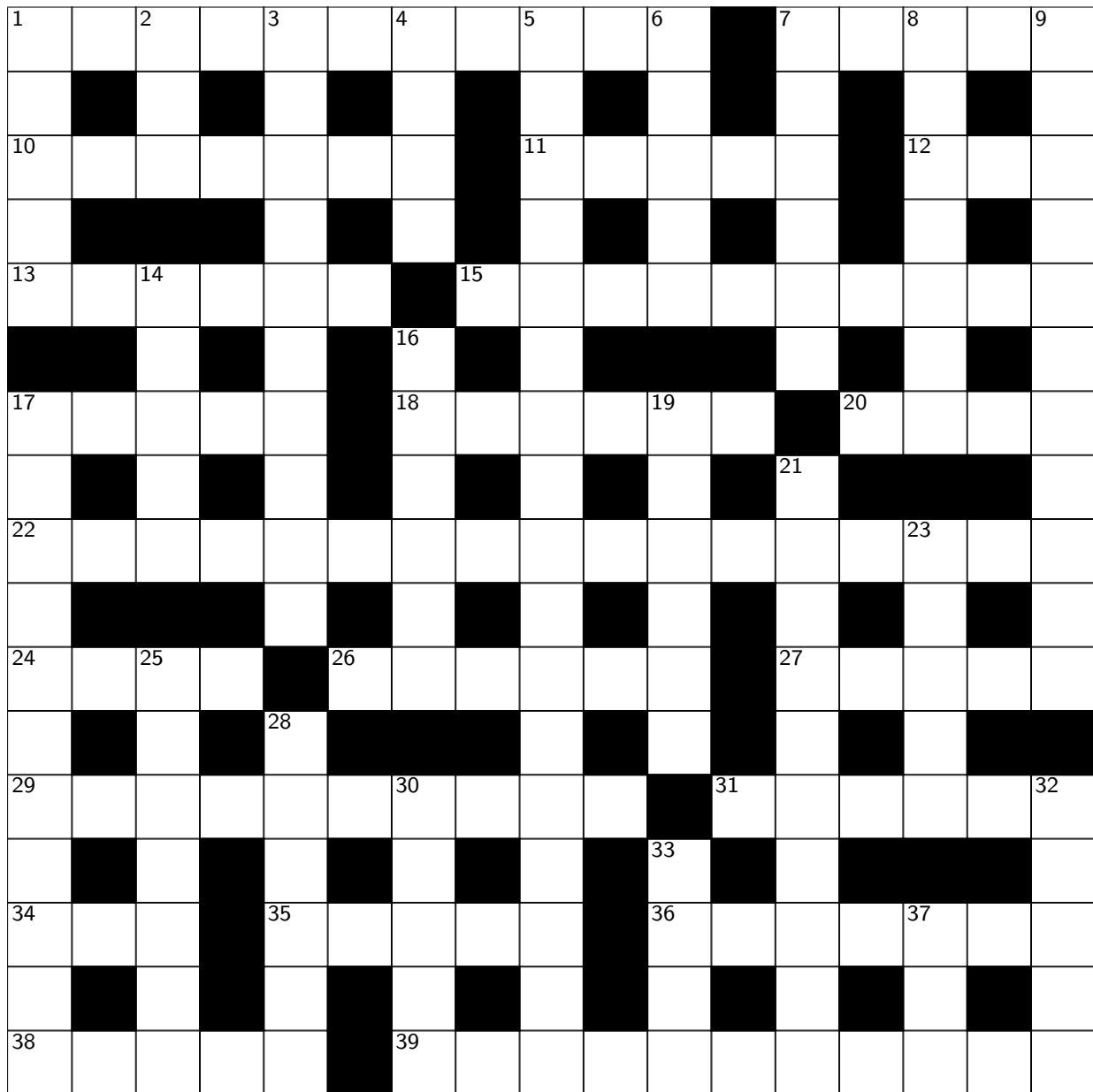

Mrinal Chakravarthy - High School Co-Head
Yeh woooo, what Vanessa said.
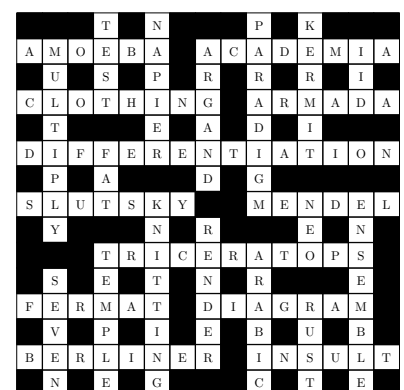

CSESoc Exec and Heads

Entertainment

Crossword

Across 1 Program which executes other programs 7 Low in pitch 10 Organic matter 11 North African nation 12 Sick 13 Device controller 15 Change velocity 17 Person acting on behalf of another 18 Active hostility 20 Largest continent 22 WYSIWYG document creation (7,10) 24 Not odd 26 Limited 27 Electronic messaging 29 South Slavic language (5-5) 31 Divide in two 34 Binary digit 35 Character encoding scheme 36 Blocking out of light 38 Master of Ceremonies 39 Free kick (7,4)

Down 1 Attach 2 One plus one 3 Property (4,6) 4 Acronym - CPU design strategy 5 Communication over cable 6 Russian currency 7 Marks 8 Fixtures used for urination 9 Angel cast out of heaven (6,5) 14 Individual units 16 Programming language 17 Accessible w.r.t memory 19 Bank employee 21 Extremely 23 Replica 25 Irregular 28 Recognition or admiration 30 Summary 32 Slightly modify 33 Remove skin 37 Greek letter

Last Crossword:

CSE Events and Societies
Upcoming Events

Weekly Barbecue
Monday 20 October 12:30-1:30pm
Physics Lawn
Free!! Yum!

Awesome Barbecue
Monday 27 October 12:30-1:30pm
Physics Lawn
Weekly barbecue on intense stimulants.

ENGSoc AGM
Tuesday 21 October 8am
Level LG, Tyree Energy and Technology Building
In this meeting they will receive reports from the Chairperson and Treasurer and vote on the new executive for 2015. These roles are:

  Chairperson
  Treasurer
  Secretary
  Arc Delegate

If you are interested in any of these roles please contact your School Society so they can pass on your nomination. Nominations close 22/10/13, late nominations will not be considered.

Remember any UNSW Student that is a member of the Faculty of Engineering has a vote.

CompClub Interest Signup Form
Are you interested in passing your computing knowledge onto primary/highschool kids? Are you interested in promoting computing to teachers and student across Australia? If yes, you should join the CSESoc CompClub team!

We are working on a lot of different cool projects and workshops. For more details and to sign up the form can be found on our website.

Optiver Tech Talk
Wednesday 22 October 1-3pm
K17 Seminar Room
Optiver are on the hunt for Graduate Software Developers, Graduate Trading System Engineers and Trainee Traders to join their team! As a leading market maker, their speed to the market is crucial to their success and this is why they concentrate on sourcing the most advanced technology and building the fastest applications. If you are analytical, love solving problems and have an aptitude for numbers, come along to their Testing Session on campus to find out where you could fit at Optiver!

CSESoc Exec Elections
It's that time of year again where we nominate the exec for next year. Keep an eye out for any details.

CSESoc Beta Team

This Edition of Beta is Sponsored By...