C→C→S→S

MAGAZINE

M.H.

carleton@CCSS: ~

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user@CCSS:~$ echo Hello World!
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Dear Reader,

My name is Sarah Ali and I'm one of the current Communications Officers at the Carleton Computer Science Society. I am so excited to present to you the very first issue of the **CCSS' Official Digital Magazine**!

My vision was to produce a publication where all students in Computer Science would have the chance to showcase their numerous talents and interests from art to graphic design to writing to vlogging and more!

This labour of love would not have been made possible without my *outstanding* volunteer editorial and design team: **Ezhil Isaac, Huda Hussain, Brian Yang, Samarth Wachche, Forest Anderson, Veronica Yung** and my constant support **Tiffany Lau!** Special thanks as well to **Max Halanen** for our cover art.

I hope you enjoy reading!

Sarah Ali // <3

commented out is a podcast created by three Carleton University Computer Science students. With the difficulties of online school, they decided that it would be nice to have a podcast where they can just talk about different topics surrounding being a student, studying CS and just generally fun conversations. Join their journey as they figure things out!

The podcast is available to listen on YouTube, Spotify, Apple Podcasts, Google Podcasts, and all the other big podcast platforms! You can also listen live during recording by joining their Discord server.
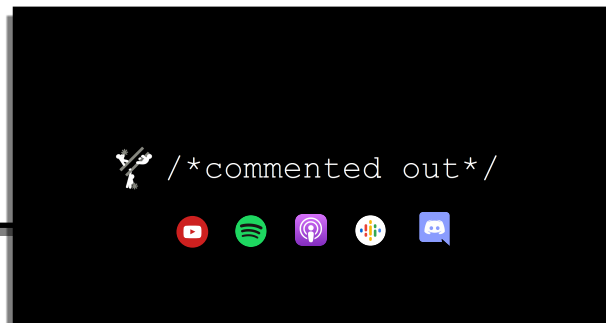
/*commented out*/

print("Sneak Peak")

I'm in the game development stream and I have a secret - I don't play games! When I was in my first game design class, I noticed the disappointment of my classmates when they realized the first assignment was a written piece where we had to analyze any game we enjoyed. The professor brought up our obvious disappointment and explained that often kids go into game development since they just like playing games and only want to build them. This isn't quite how making games work. There are so many elements that turn a game into a 'great' game, and just playing them is not enough. Generally when you make games, it's not about *you* - you're on the other side of the screen.

With creating games, there's also the programming portion and if I'm being honest, the development part is never as fun as you think. I did a group project with some of my closest friends in my first-year computer science class and you guessed it, we made a game! Regardless of how interesting the game is or how much you like your teammates, it can be super frustrating especially when finding bugs, replaying the intro a million times, and just booting up the game may be a headache. Despite all of the boring parts, feeling like a team and developing our ideas into something interactive are what I like about the game dev stream.

VERONICA YUNG

Although game dev careers are a bit of a niche area, I was able to find another passion while still pursuing game dev—UI/UX design. It all started with making some simple designs for what my games might look like which then expanded to a recent *Figma* workshop I attended and next thing you know, I'm applying to every single UI/UX designer internship and watching 20+ videos on how to get my portfolio started!

The game development stream is a 9000-dimensional world and I say this because it's not simple in the best ways possible.I really like how even during the dreadful parts of my courses, I find that there's always at least one thing to smile about, even if it means crying and smiling at the same time!

println!("A Case For Open Source");

FOREST ANDERSON

Open source software development is a methodology that has grown significantly in the last few years. Although the open source mindset has been around since the early days of operating system development, it has only become mainstream in the last decade due to advances in how we communicate and share code. Many companies are shifting towards tech stacks that are in part or are entirely open source. Open source developers are able to make careers off their work through sponsorship.

Open source developed software is software whose source can be analyzed. This means that it isn't compiled and then distributed, but rather the source code itself can be seen. Any time you use any technology, it's quite likely that you're using something with at least some open-source component to it. You can go read the *Linux* kernel to see how operating systems work, or learn about how images are processed by reading Pillow.

Many projects develop umbrella foundations to work under as non-profits. This is a great model, since any income they make from donations or otherwise won't be taxed. Since an open source project's initial motivation likely doesn't contain a business plan, it aligns quite well with the goals of a not-for-profit project. However, there are ways to still make income. Many libraries that are used by large companies get donations from them as well. Furthermore, companies might even hire or sponsor specific developers to work on projects that they use.

Open source projects are a great way to enhance your own skills. Larger projects are often structured to allow for tasks to be distributed to whoever wants to take them, and might even reserve easier tasks for beginners to work on. It's not always easy to know which project to get started on though. To pique your interest, I would recommend exploring on Github to find projects that align with your interests.

In the future, open source will keep growing. Now, with more and more projects in the open, and new projects starting, it is becoming the mainstream paradigm that is replacing archaic proprietary code. Developers are able to make a living off of their work in the open source ecosystem, and software is more secure from all of the eyes looking at it.

🔍 written by **Brian Yang**

With the dire situation in Ottawa and the amounting of cases, the city and quite frankly, anywhere, can get pretty lonely sometimes. Thankfully Computer Science students seem to hold their ground during the pandemic as our species seems to never poke our heads out of the safety and warmth of our rooms. However, as comparable as we are to the furry little groundhogs at Carleton, our lifestyle is still being affected more than meets the eye, especially in our classes. To speak on the effect COVID-19 has on Computer Science students, please welcome the one and only Isaac Bragg Gardiner!

>> Let's get to know Isaac!

Isaac is a second-year Computer Science student from Ottawa in the algorithm stream. He works in the field at a game company known as Vortex Games, based in the US. Currently, Isaac is in the process of building a fighting game called Rushdown Revolt that is backed by Kickstarter and played by some of the most notable Smash Players out there. Not only is he already a seasoned CS veteran by his second year, he is also very passionate about hacking (that's right, watch out everybody!) and robotics, having been to Defcon as well as competing in Robotics competitions, respectively. Some fun facts about Isaac outside of the field: Did you know Isaac can sing the alphabet backwards and memorized 52 digits of pi? I sure didn't! Apparently, he can also solve Rubik's cubes up to 9x9x9, wow!

>> Let's get down to the Nitty Gritty: the Interview!
>> How do you think we, as computer scientists, can adapt to online classes?

"So for me, game development definitely helped me for sure, but that's really just me. I think that self-learning is a huge part of computer science since computer science is quite malleable. There would be an arsenal of resources out there for self-learning if you wanted to learn like a new language per se or even just techniques and algorithms. Some places I'd recommend newer students to go to could be like Code Academy, like Geeks for Geeks, for example. Now don't get me wrong, although I love computer science profs at Carleton. They teach really well, but there is a little bit of truth behind the
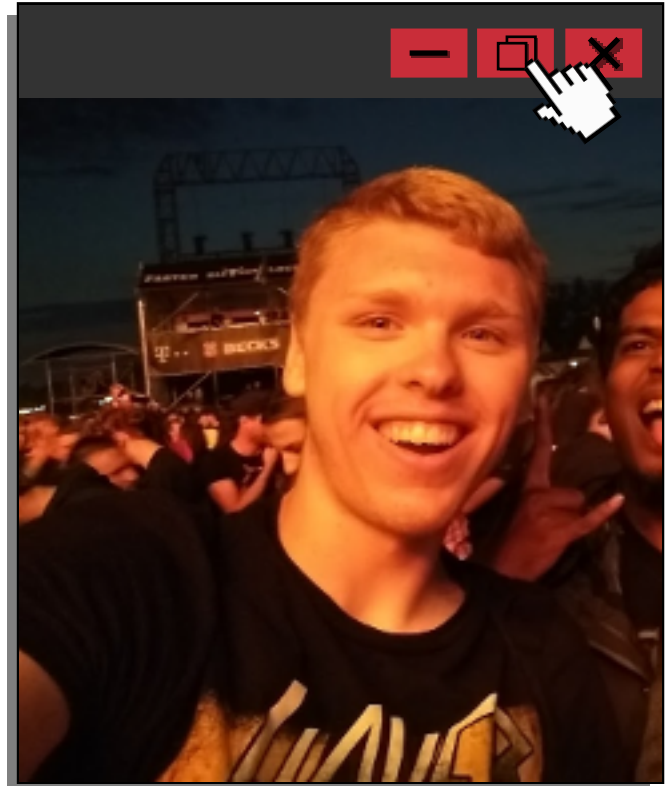
'Khan Academy Indian YouTuber meme' where they explain everything very fluently. But in essence, I think, for the most part, we as computer scientists are doing fine in the face of the pandemic and online classes so far."

>> How do you think computer scientists are dealing with mental health issues, and what can we do?

"Well, there's a possible chance that since courses are online, people feel that there is actually more work to do lately, but honestly, that could just be a placebo. But even if it is just a placebo effect, it doesn't mean students are less stressed out about their workload than before, resulting in difficulty dealing with mental health. Since classes are all online now or asynchronous, communication with profs or TAs is at a minimum, so not being able to clarify assignments or lecture material can build onto that stress as well. I'd say that most of us are dealing with the pandemic fairly well, but I have no grounds to really base that on in reality. I would just say

that I have noticed more people using more non-adaptive coping mechanisms lately, but that's all just purely anecdotal, and I'm not even quite sure that it is because of COVID. But an underlying recommendation to all students is to just take some time to yourself and figure things out on your own."

"An important thing I found is that I've noticed across all boards that those who enjoy computer science or their program are doing the best in terms of mental health. This could, in part, be a big wake call to some and may help people realize whether or not their program is fit for them."

>> How do you think Computer Science clubs/societies get more people involved?

"I know from what I've seen across all the Discord channels for computer science, I've come to the conclusion that the most successful (or maybe busiest?) people tend to just be chatting with others on Discord, not necessarily just hopping from event to event. I mean, events are useful and all, but somehow I'm starting to believe that it's actually even more important to get people talking, not just working. This could be implementations of a 'question of the day' type of thing or even discussions about recent events about computer science events in the news. Basically, I think the answer is to just get people talking, really."

>> What do you think are the benefits of side projects, and how can we motivate ourselves to start?

"See, I think people have the wrong mentality about side projects, I am under the impression that most people see side projects as just extra work they wouldn't have time to do anyways, but I'd say it's more than that: side projects are the chance to flaunt yourself off. There are **tons** of benefits to side projects, and they're pretty much required to get the pick of the litter jobs out there; it's what gives you an edge over the other 500 students in

your program."

"Getting started is the hardest part, but my advice is to first find something you're interested in. This could mean that if you're in the algorithm stream, do an algorithm program, etc. Next, break up your project piece by piece. This way, you can build confidence in yourself when you see your progress amp up piece by piece, starting from a prototype. There's just something about looking at your achievements on Github and getting that fuzzy feeling. Lastly, side projects can be daunting, so when I say this, I really mean it: you may **need** some help. Don't be afraid to ask people for help on the Discord channels, check Google or even talk to your prof about it."

>> How do you deal with procrastination?

"Well, I mean, there is definitely not one way to deal with it by any means, but it's mostly about knowing yourself and finding yourself through a probing process. For me specifically, I set a time when I work and do all my work then, which kinda requires me to wake up at the same time every day regardless of when my first class is. This is really good for your circadian rhythm, and it doesn't even mean you have to do schoolwork at that time. Having that free time after your scheduled working time can help motivate yourself to work more."

>> Any final words?

"I'll see you guys around on the Discord or anywhere computer science-related. Hit me up if you wanna answer some questions or discuss computer science-related material or honestly anything. I wish everybody good luck and have fun (especially the "have fun" part)!"

That's a wrap, everybody! Hope you found this helpful so we can continue our ongoing battle with COVID!

Meet **Timofe!** She's in her first year, majoring in Computer Science at Carleton University. She makes all type of content from story times, clothing hauls to college content in her free time with no particular posting schedule. She also likes to think she can be funny and you can check out her Youtube channel!
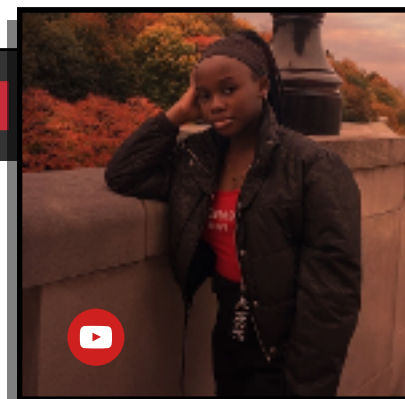
2020 REWIND:

Halloween Costume Contest

1st Place:

Elias Hawa as
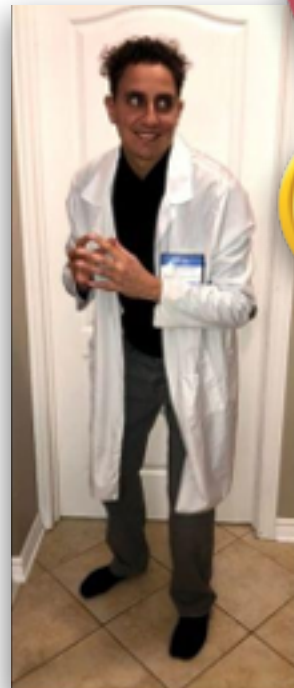**Dr. Doofenshmirtz** from ***Phineas and Ferb***

2nd Place:

Ari Sieger as an **Imposter** from ***Among Us***

3rd Place:

Veronica Yung and friends as
Gru, Vector and a Minion from ***Despicable Me***

Congratulations!

Honorable Mentions:

Top Left: Victor Yang as **Freddy Krueger** from *Nightmare on Elm Street*
Top Right: Victor Li as **Why Guy** from *Youtube*
Bottom Left: Ayusha Pradhananga as **A Weird Sister** from *The Chilling Adventures of Sabrina*
Bottom Right: Aaditya Chopra as **Young Chops**

🔍 written by **Samarth Wachche**

STUDYING_FROM_HOME():

Studying from home has its pros and cons. I made the decision to study abroad to get international exposure and experience the unique university life but due to the current situation, I have to accept the fact that I have to study online for one year, which has been the biggest con. I figured that pouting about it won't work and that I just have to accept that fact and try and make the most of it so here is my experience so far with being an international online CS student.

As an international student I know that I must move to Canada far away from my family, live alone, make my own food, clean my room and do my own laundry. But as I am still living with my family, I can spend more time with them, have meals with them every day, chit chatting and so much more. And the most important thing! I get to eat the delicious food prepared by my mom for one more year until I move out. Another pro is I get to sit wherever I want to watch the lectures and feel generally more relaxed in my own home environment.

TIME_MANAGEMENT():

The biggest barrier as an international student I face is the time difference - Canada is 9.30 hours behind India. So basically, I would have to stay awake all night to attend the classes or do the assignments. But thanks to


the asynchronous classes provided by Carleton, I don't have to do that! I can watch my lectures in the daytime which I prefer rather than becoming a night owl. I found that I am more productive in the mornings so instead of staying up late, I wake up early and get to work. The downside to this though is that if I have any questions about the course or lecture, I have to email the professor or the TA and wait for the reply for 2 or more days due to the time difference which hasn't been great for me.

Managing my time wisely and staying engaged are very important which I have realized within these first months of university. Time management is a very crucial skill for a university student and honestly, I am still struggling with it. I have wasted hours watching series and scrolling through Instagram, procrastinating and being lazy. Despite that, I am making progress and trying my best to be productive! For example, I use an application called 'Hold' which keeps track of my time while studying, blocks all my notifications and tells me how many hours I have been productive in the day. One more thing I have been trying to do is a *'social media detox'*. I am trying to reduce my screen time by trying not to open Instagram or WhatsApp. I even uninstalled Instagram for a week which is my personal record. One thing which helped me reduce my screen time was to unfollow all the celebrities from my social media accounts, making my feed look boring and less attractive. The progress I've made has made a lot of impact and helped me focus on my classes. Reducing screen time is the number one recommendation I have for students struggling to manage their time, for sure.

HEALTH():

With the workload of being computer science students, maintaining our health is very important. Since the lockdown has started, I am regularly exercising in the morning. I wake up at 6:30 AM every morning and do yoga for an hour and then get started with the work. I've been following this routine for 7 months and I feel energetic and ready to start working! In addition to yoga, I also play tennis which helps get my blood flowing and keeps me active.

Another thing I noticed during this pandemic situation is
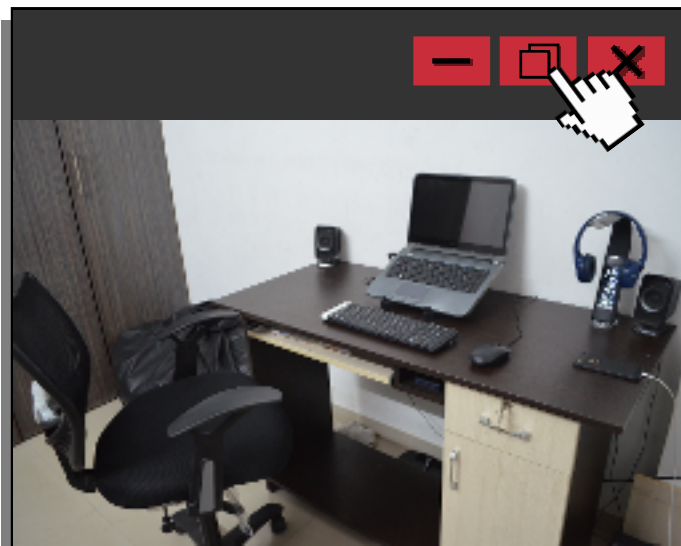
that taking care of your mental health is just as important. Don't just sit for hours on the computer coding or completing your assignments! Get off the chair, go outside, take an evening walk, organize your thoughts. (Don't forget to take precautions: wear a mask when you go out and practice social distancing!) Keep in touch with your friends regularly, even for small talk. Taking breaks is very essential; university life even online can be stressful so it's okay to take days off when you want to freshen up. Start reading books that you enjoy in your spare time like fiction or self-help books which can help you set your goals. I, personally, usually take a day off on Sunday, watch some web-series, or call my old friends and just chill. But by the end of the evening, I start studying so I do not feel too lazy to start my day on Monday.

WORKSPACE():

As I am studying from home, I feel that having a dedicated workspace is an important part of online school. I used to be the kind of guy who was waking up late in the morning and directly going to the laptop to work. But that wasn't healthy! So instead I created my own workspace apart from my bedroom. I use the guest room as an office because it was just sitting there and no guests are going to come during the pandemic (LOL). I made sure that my desk setup is the way I like it. I connected my laptop to a monitor to avoid eye strain and use it as a dual monitor. I've also got a good ergonomic chair to prevent future back pain and all. Having a

workspace also motivates you to work harder than just sitting on your bed all day. Always have a bottle of water on your desk to keep you hydrated! Sitting several hours on the chair is also not healthy, so I get up from the chair every hour or so just to stretch my legs and get my blood flowing.

COMMUNICATION():

Over the past term, I've realized that communication is more important than ever, especially if you are like me and living in your home country and haven't even met your classmates or professor or TAs. Sometimes during assignments, I felt that I was too stressed out and after reaching out to a classmate, I felt relieved because all that stress and pressure didn't turn out to be necessary after all. Communicating with your classmates also keeps you in the loop for things like assignment deadlines, extensions and when midterms are rescheduled. I try to always stay in touch with the professors and TAs and being active in study group sessions by helping out other students because it makes me feel more confident in my understanding too.

I hope that the things that I've learned over the last term can help you as much as they helped me. My situation as an international student is a little different from Carleton students in Canada which is why I wanted to write and share my experience. Thank you for reading and best of luck with the Winter term!

Are you a **writer** or a **designer?**
Or an **artist** or a **content creator?**

Do you want to learn and practice being any of the above?

Come join our **editorial and design team!** Or even just submit something cool you've written or created so that we can share it!

We are always looking for more students to join our team.

Just shoot an email to **Sarah Ali** at sarah.ali@ccss.carleton.ca and we'll take it from there. Beginners are welcome to join as well!