

Who I Am

My name is Zoe, also known as Castofly Technologies' 3rd employee. I am a UBC computer science student and I worked as a software developer intern at Castofly during the summer of 2020. I stumbled upon Castofly while scrambling to find a summer job placement during the COVID-19 pandemic. I had applied to dozens of job postings, all to no avail. What stood out to me about Castofly is how directly applicable it was to educators, and how I had not really seen anything quite like it.

What I Worked on

Working at a startup on the brink of releasing its beta product meant that I got to work on a large array of diverse, exciting tasks, all integral to the final product. Some of the most memorable ones were:

- developing an in-memory SQLite database for local application data
- hooking up and managing a PostgreSQL cloud database with Amazon Web Services for licensing data
- designing a trial signup webpage using html/css
- working on User Experience (UX) design to improve the application look-and-feel and workflow
- creating various new tools and features for the Castofly application.

Throughout the four months I was at Castofly, I got to touch on so many different areas of software development.

One of the most challenging tasks I worked on was developing a paint bucket tool for the application. You've probably encountered this tool in every image editing/drawing application you've ever used; it is a tool that allows you to fill in an enclosed area/shape. Normally, it is quite simple to implement this with the [flood fill](#) algorithm.

However, because our application is centered around optimization, speed, and being undoable/redo-able, flood fill was not possible with our current drawing setup. I found myself having to design and use algorithms to interpolate between pixels, segment inner and outer barriers, and render the fill in an efficient manner, all while adhering and integrating seamlessly with the existing tools. Along the way, many of my disastrous attempts at a modified flood fill algorithm produced some rather gorgeous art. The moment I managed to fill a donut was a moment that my heart leapt with joy.

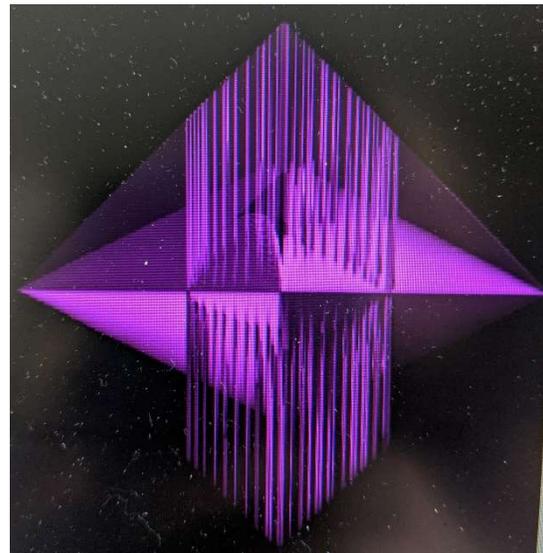


Figure 1 my mistakes lead to beautiful art

Feeling Close, Despite Working Remotely

I did my entire internship at Castofly remotely. Working from home can be difficult, especially in the summer when you have no air conditioning. Throughout July, the hot air in my room would often boil

me into a human mush. I did many meetings on my cool bedroom floor, and my coworker would dunk his head in the sink multiple times a day. To battle the heat-induced lethargy, I found that taking short breaks to walk around the block and drinking ice cold water really helped me stay focused on my tasks.

My coworkers really helped enrich my experience and made me feel less isolated, despite working from home every day. I had many wonderful bonding moments with them during our weekly virtual get-togethers. I collaborated with the other software developer interns on many tasks, while also cracking many jokes. We were even able to meet a few times when safety regulations permitted.



Challenges and Growth

Of course, working remotely, at a start-up nonetheless, has its drawbacks and challenges. Miscommunications happen and I learned a lot about asking clarifying questions and making sure everyone was on the same page. Switching between different jobs and tasks also proved to be quite challenging and overwhelming at first. But Iman, the founder and CEO, was there every step of the way to answer questions, offer guidance, and give and accept feedback. Throughout the summer, as Castofly grew and blossomed, so did all its employees. By the end of the summer, we were a well-oiled machine, working perfectly in sync.

A Valuable Asset



Looking back on this work placement, one of the most rewarding aspects of working at Castofly Technologies was that I got to write useful code that would be part of the final product. I was trusted to take direct control over various software architecture decisions. The feeling of being highly valued, relied on, trusted, and respected for your work is priceless. I leave this job placement bursting at the seams with new knowledge and a newfound appreciation for the world of tech startups, for small companies that invest in college interns.