



## Profiles in Computing

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**Education:** B.Eng., McGill University  
Ph.D., Cold Spring Harbor Laboratory (in progress)

**Advice to students:** Computing is not so much about computers as it is about solving problems.



**Q: Please describe your path to becoming the computing student you are today.**

**A:** My first encounter with a computer was in 1999: I was 10 years old and my parents had just bought our first PC. Once they pressed the "on" button, the monitor lit with the "Windows 98 Setup" screen; I've been hooked on computers ever since.

Reading books and websites, I came to understand how computers work and how to write software. I also enjoyed reading about evolution and genetics, which led me to work on summer projects during my undergraduate degree. There, I explored diverse topics in the life sciences and applied my computational knowledge to interesting biological problems.

**Q: What is your major and why do you love it?**

**A:** After completing my degree in computer engineering at McGill University, I am currently pursuing a Ph.D. in biology at Cold Spring Harbor Lab (CSHL).

I chose CSHL because of the atmosphere of scientific innovation, the sense of community and collaboration that exists among scientists, and because CSHL is known as the hub of biology, where researchers from all over the world visit each year to attend courses and conferences.

I get to work at the interface of engineering, biology and computer science, where my goal is to understand the mechanism of various diseases and ultimately develop more effective molecular therapeutics.

**Q: Please describe 24 hours in your typical day as a graduate student.**

**A:** My day starts around 8. I finish up some work at home for my research projects. I get to the lab around 11 AM and start planning my day, think about algorithms or peruse scientific journals for interesting papers.

Besides work, my day includes playing volleyball or going to NYC for startup events or science talks for the general public. I also work on Technophilic Magazine (sending e-mails, writing articles, making sure there is enough content for the next issue, etc.). My day finishes around 3 AM, when I am usually exhausted and go to sleep.

**Q: Please describe a computing-related school or work project of which you are most proud.**

**A:** During my undergraduate degree, I enrolled in a 'Design Principles & Methodologies' course, teaming up with 4 other students to build two robots that collaborate to perform a delicate task: lifting a heavy object.

One of our robots navigated a field autonomously while avoiding obstacles and looking for the red balls scattered across the field. Once a red ball is found, the first robot communicates via Bluetooth to the second, and arranges that they meet.

Once the second robot joins the first one, they lift the ball together, after which one of them drops the ball into a designated container.

**Q: What are your hobbies/ interests/ passions beyond studying computing?**

**A:** I believe that science without communication is irrelevant, which is why I made it one of my endeavors to communicate science to the public in an engaging way. When I'm not "computing", I'm the Editor-in-Chief of Technophilic Magazine, a science/engineering magazine published at McGill and CSHL.

I'm also a Science Writing Mentor for the Journal of Young Investigators, where I guide students in creatively communicating science to the public. I have taught interactive classes at the DNA Learning Center to middle and high-school students about the science behind common molecular biology experiments, while guiding them through laboratory experiments they undertake.