Margaret (Maggie) Chen

maggiemc.chen@mail.utoronto.ca 604-518-8053 www.linkedin.com/in/maggie-mc-chen/

EXPERIENCE

Technical Specialist Intern **May 2022 - August 2022**

Bell

- Implement end-to-end solutions; prototype and code the Cloud Maturity Assessment and Dashboard on the Bell IT Cloud internal platform to aid the transition of Bell teams to public cloud servers.
- Worked on this feature from the beginning stages all the way to the production launch by brainstorming use cases, creating prototypes with Just in Mind, scheduling tasks on Jira, utilizing Javascript, HTML, CSS, Bootstrap, Thymeleaf and more to develop the front end, leveraging MySQL to work on databases, queries, and more backend development, and using Java and Ajax to connect front and back end.

Research Assistant **March 2022 - Present**

Opthalmic Stem Cell and Regenerative Medicine Lab at Stanford University

- Research the structure and growth of the eyelid and eye through the new field of single-cell RNA sequencing. Using Satija Lab's Seurat package, 10X genomics, Chan Zuckerberg Initiative's CellXGene software, and more, my research joins the work of other researchers in discovering more about genes in relation to the development and diseased models of different structures and tissues in incredible detail.
- I also contribute to the collective effort of the Tabula Sapiens Project, a human transcriptome reference at the single cell resolution.

iGEM Toronto Dry Lab Lead **May 2022 - Present**

- Drive and lead the Dry Lab team in our synthetic biology project of Oak Wilt detection using LAMP technology. This includes holding weekly team meetings and scrum meetings, organzing tasks, and facilitating discussion within the team.
- Research and utilize LAMP primer design software, code our own primer design filter with Python, collaborate with the Wet Lab team to experiment with our primer designs in the wetlab and facilitate an iteration process between the teams, and meticulously record documentation and progress for the team Wiki.
- In October of 2022, I will present our team's work along with the team leads of Wet Lab, Human Practices, and Hardware, at the International Genetically Engineered Machine Jamboree in Paris.

Co-President and Workshop Director **January 2022 - Present**

NeuroTech at University of Toronto

- Innovate different neurotechnology projects, such as a mind-controlled computer (i.e EEG determined keyboard and eye tracking cursor), utilizing the interdisciplinary nature of electrical engineering, ML, neuroscience, and more.
- Expand Neurotechnology knowledge through the creation of 11 educational workshop sessions for club members and post-secondary students by reaching out to ML, neuroscience, and computer science mentors; creating new workshop content; updating old content; and keeping GitHub material/syllabus up-to-date.
- Maintain email communications with workshop students, sending weekly reminders with assigned readings.

PROJECTS & HACKATHONS

2022 ElleHacks Scotiabank Challenge Winner

- Created MEALFIX, a website that allows users to purchase safe and delicious food products, that would have otherwise been thrown out by restaurants and stores, at a discounted price; this solution addresses the issue of food insecurity of low-income individuals and excessive food waste by stores.

Sous-chef (Java with Android GUI, maintained with Git Version Control and Jira)

- An android app that keeps track of various details of the user's food inventory and suggests recipes based on these factors (i.e expiry date). Implemented design principles and patterns, SOLID principles, clean architecture, and more, making a clean and flexible program that also considers accessibility needs of users.

My Website (HTML, CSS, JavaScript, maintained with Git Version Control) *https://maggiechn20.github.io/*

- Self studied HTML/CSS and Javascript to design and code my own website that tells visitors a bit more about me.

Chocotech

- A TikTok account where I make videos about , and self teach, simple hardware and software projects. My goal is to be able to incorporate more projects that have environmental or medical use and expose more women to learn hardware.

International Genetically Engineered Machine Jamboree (*October 2022)*

- Present the work of iGEM Toronto's Oak Wilt project at an international setting as one of the team leads. The project combines wet lab, hardware, dry lab, and human practice aspects to create an Oak Wilt detection tool to protect the trees of Ontario.

AWARDS, SCHOLARSHIPS, AND CERTIFICATION

The Milne Research Award @ University of Toronto **2022**
The David W. Pretty Award @ University of Toronto **2021**

- Awarded to three students who have achieved a minimum overall B average and have been active in student life at Victoria College and the University of Toronto. Valued at $5000.

The Clifton Graham Roberts Admission Award @ University of Toronto **2020**

- Awarded to one newly admitted student who is involved in school and community services and has great scholastic achievement. Valued at $5000.

The BC Excellence Scholarship from the Province of British Columbia **2020**

- Awarded to the top 55 British Columbia high school graduates who demonstrate service, leadership, and aptitude and commitment to their chosen career paths. Valued at $5000.

Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans **2020**
Course on Research Ethics

EDUCATION

University of Toronto, *Honours Bachelor of Science in Computer Science and Neuroscience* **Expected 2024**

- GPA: 3.94/4.00
- Related Coursework: Software Design (Java), Introduction to Computer Science (Python), Probability with Computer Applications (R), Mathematical Expression and Reasoning for Computer Science, Introduction to the Theory of Computation, Data Structures and Analysis, Computer Organization, Computers and Society