Github: chuntul || Email: chantalc.ho@mail.utoronto.ca

Education

Current Education:

Bioinformatics and Computational Biology Specialist and Statistics Minor, 3rd year at the University of Toronto (St. George Campus).

Previous Education:

Victoria Park Collegiate Institute, OSSD Recipient and Ontario Scholar

Related Courses Taken:

Linear Algebra I | Probability with Computer Applications | Statistics for Computer Science

Other Courses:

Algorithm Design, Analysis and Complexity | Data Structures and Analysis | Software Tools/Systems Programming | Programming on the Web | Intro to Theory of Computation | Software Design | Mathematical Expression and Reasoning for Computer Science

Experiences - Related

Research Project Course Student – Parkinson Lab

September 2017 – April 2018

- Researching and identifying optimal metagenomic pipelines for functional and taxonomic annotation of genes, and determining their consistency and accuracy for further prediction by processing/analyzing datasets derived from stool samples of Crohn's disease patients who have received fecal microbiome transplants.
- Using R, Python.

Research Student - Benjamin Haibe-Kains Lab

May 2017 – August 2017

- Collecting drug identifiers for annotating drug datasets, as well as curating a set of drugs to be used in a future version of DNF: https://github.com/bhklab/DNF
- Creating various data visualizations using the d3.js library for PharmacoDB, a database for mining pharmacogenomic datasets: http://pharmacodb.pmgenomics.ca
- Published in NARS https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5753377/
- Unit-testing/debugging various functions in PharmacoGx as well as creating new drug datasets (PharmacoSets): https://github.com/bhklab/PharmacoGx

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ROP299Y Research Program - Bioinformatics

September 2016 – May 2017

- Developed an ePlant Navigator phylogenetic tree using d3.js (a JavaScript library using SVG, HTML and CSS) in Bio-Analytic Resource (BAR) ePlant Browser, available at: http://bar.utoronto.ca/eplant/
 - Prototype: http://bar.utoronto.ca/~cho/index.html
- Worked under the supervision of Professor Nicholas Provart as well as various members of the Provart Lab, wrote a proposal and final report, presented my project at the ROP299 poster fair
- Used JavaScript, jQuery, and HTML/CSS

Student Web Developer: Benjamin Haibe-Kains Lab

October 2016 – January 2017

- Programmed new features into source code for a site designed to display relationships between drugs based on structure, sensitivity and perturbation, found at: http://dnf.pmgenomics.ca
- Currently published in the Cancer Research journal, manuscript found at http://cancerres.aacrjournals.org/content/early/2017/03/17/0008-5472.CAN-17-0096
- Worked with Professor Benjamin Haibe-Kains as well as a team of undergraduate students in the lab HYPERLINK "http://dnfwebapp.herokuapp.com/"
- Used d3.js, Cytoscape.js to help create charts, and Angular.js, JavaScript, and HTML/CSS to create a documentation page as well as debug/create new features in the drug network

Experiences - Skills

Paid Summer Work-Study – Pedagogical Website Designer/Developer May-August 2016

- Managed a WordPress blog focusing on the pedagogical changes in the Human Biology Department at UofT
- Worked with a team of 5 UofT undergraduate students and Professor William Ju of the HMB Department at UofT to improve on the Human Biology Department's methods of teaching approaches towards students, lecture styles, format of lecture powerpoints.

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Bridletowne-Warden Animal Hospital – Vet Assistant

2015 - 2016

- Cared for dogs, cats, and rabbits before, during and after surgical procedures
- Conducted blood and urine tests, cleaned and helped groom animals
- Helped with basic training and feeding procedures for animals
- Made general and medical reports on animals

TPL Youth Advisory Group – Bridlewood and Agincourt Library

2013-2015

- Designed/coded a webpage for the library's blog in HTML/CSS, maintained the blog posts and website
- Organized and participated in community events (barbecues, fundraisers, holiday celebrations)
- Wrote monthly newsletters and book reviews
- Planned, presented and implemented services/programs to benefit the library
- Developed leadership, communication, and teamwork skills

Leading to Reading at Agincourt Library

2013-2014

- Leading to Reading (LTR) is a program that assists children in grades 1-6 who are struggling with reading or other homework
- Students are often ESLs (English as a Second Language), communicated with them in Cantonese, English, and French
- Helped students read books at their age level as well as finish worksheets designed to help them improve their language skills

Relay for Life - Co-founder, Finance and Registration Chair

2012-2014

- Co-founded and co-organized a Relay for Life Event in my school to support cancer research and recognize cancer survivors/fighters
- Managed finances and budgets, organized donations and fundraisers to support the event
- Tracked participants, promoted teams to sign up, organized registration process

Summer Program for Disabled Persons at William J. McCordic School

Summer 2012

- Volunteered with disabled people aged 13-30 years old
- Prepared meals, set up wheelchairs/other equipment, cared for students

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- Organized various activities (walking around the community, sports) and taught basic math/English to some students

Skills and Interests

- Fluent in HTML/CSS/SVG, Python, Java, JavaScript (d3, jQuery, NodeJS, Express), R, C, SQL
- Proficient with Git/GitHub, Unix, LaTeX, Microsoft Word/Excel/PowerPoint, Adobe Photoshop, Adobe Illustrator
- Bilingual: Fluent in English, Cantonese
- Played piano for 15 years
 - Finished my RCM ARCT performance degree in August 2015
 - Won a gold medal for the highest mark in Ontario for my grade 9 exam