

## EDUCATION

### Honors Bachelor of Computer Science

Jan 2018 - Present Expected Graduation (January 2022)

Lassonde Faculty of Electrical Engineering and Computer Science, York University, Toronto, ON

- Golden Keys International Honors Society recipient; given to the top 15% of students in each faculty
- Awarded York University Academic Scholarship 2018, 2019; Awarded the Lassonde Undergraduate Research Award (LURA) 2019

### Bachelor of Science in Medical Radiation Sciences and Advanced Diploma Program

Graduated June 2016

Faculty of Radiation Oncology, University of Toronto and Michener Institute of Applied Science, Toronto ON

- Graduated this program November 2016
- Successfully completed the CAMRT board exam (MRT(T)) to become a licensed Radiation Therapist

## RELEVANT EXPERIENCE

### Software Developer

May 2019 – Nov 2019

Lassonde school of Engineering York University, Toronto, ON.

- Worked with York Professor Suprakash Datta on an abstract "Automatic Labeling of Lung tumors in CT Scans" and presented findings in the Lassonde Undergraduate Summer Student Research Conference
- Utilized machine learning algorithms (Support Vector Machines) to automatically process CT scans in order to detect and flag lung tumors with an accuracy of 75% on the testing data
- The solution was written in Python and used various libraries such as OpenCV, SciPy, sklearn, pandas

## RELEVANT PROJECTS

### Friend Request – Java Android App - [friendrequest.ca](http://friendrequest.ca)

July 2017 – Feb 2019

- Co-Created a mobile application called Friend Request which is an aggregator of social media accounts using Java
- Currently hosted on Amazon Web servers supporting 120 users around the world
- Was responsible for developing key features such as the search bar function, user profile layout and the landing page

### Country Guessing Game - Java Android App - <https://github.com/WiegnerO/Caps>

Dec 2018

- Developed an Android mobile application in Java and implemented the front end and back end using an MVC design pattern
- The application was implemented using the i2c API
- Users must correctly guess a country or its capital when given clues; the users scores were tracked and placed in a leaderboard

### Brandon Ben Music - Web Front End - [brandonbenmusic.ca](http://brandonbenmusic.ca)

Jan 2018 – Feb 2019

- Designed a website for a musician allowing fans to listen to music, view photos, see upcoming performances and contact
- The website is responsive changing format based on the user's device
- The website was developed using HTML5, CSS3 and Javascript and is currently hosted on GoDaddy servers

### Note Encryption – Java Android App- <https://github.com/WiegnerO/KryptoNote>

Nov 2018

- Developed an Android mobile application in Java and implemented the front end and back end using an MVC design pattern
- Allows users to encrypt and decrypt notes such as passwords or sensitive information; users have the option to save the notes on their devices which can be retrieved later
- The encryption was implemented with a Vigenère cipher encryption algorithm

### Cumulative Project – C programming

Nov 2019

- Self-taught C language by developing a C program where a user can create multiple alarms via command line arguments
- When an alarm is created the user can delete, update, or check the time left of the alarms using different commands
- Using the POSIX library each newly created alarm is placed in its own thread, semaphores and other synchronization tools were used to prevent race condition among the multiple threads

### Simulation of RISC-V CPU using Verilog Hardware Design

March 2019

- Designed software CPU which consisted of ALU, Decoder, ROM, PC, RAM modules written in Verilog using Intel Quartus Prime software
- Created an ALU capable of implementing different RISC-V functions such as load/read word, shift logical left immediate, branch if equal, and multiple arithmetic functions OR, XOR, Add, Subtract
- The system supports taking in machine language inputs and would compile them into the corresponding RISC-V instruction to perform which the CPU can use

## TECHNICAL SKILLS

- **Languages:** Java, JavaScript, PHP, Python 3, CSS3, HTML5, JSON, XML Ruby, C, BASH, AWK, Verilog, SQL
- **Software/Tools:** Github, Android Studio, Quartus Prime, Wordpress tools, MS Office, Jupyter Notebook, Spyder

## OTHER EXPERIENCES

### Medical Administrator

May 2018 – Present

*Atkinson Medical Centre, Thornhill, ON.*

- Medical administrator for 5 physicians; responsible for liaising with patients and communicating critical information including patient appointments, follow ups and urgent next steps
- Improved intake process by creating a form which helped office staff record and share patient information in an organized fashion
- Maintained and updated patient medical charts, lab reports, and correspondences

### BEST Lab International Experiential learning

May 2019

*Technion Israel Institute of Technology, Israel*

- Selected by the university to participate in a 4-week intensive entrepreneurship training program with 18 other York students
- Received 1<sup>st</sup> place award at the Technion University Start-Up Business Competition by a panel of venture capitalists, the ranking in the competition was based on the participants start up idea and business model
- Collaborated in a team to develop a layout for a mobile app that aids women during their mensuration period by providing important information

### Bethune Peer Tutor

Jan 2019 – Nov 2019

*York University, Toronto, ON.*

- Responsible for tutoring 12 York students in university level math and computer science courses
- Participated in a leadership course “Introduction to Peer Leadership” which emphasised and refined communication and leadership skills

### Radiation Therapist Clinical Placement

Sept 2015 – July 2016

*Princess Margaret Hospital, Toronto, ON.*

- Completed 1600 hours of clinical placement which required learning and operating technical equipment used for cancer treatment including linear accelerators and CT scanners
- Worked in an interdisciplinary environment with other healthcare workers such as nurses, oncologists, occupational therapists, physiotherapists
- Educated and supported patients during the radiation treatment process.
- Provided solutions for dealing with radiation induced side effects and incorporated principles of patient centered care when interacting with patients.

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## PERSONAL ACCOMPLISHMENTS

### Stand-up comedy writing

- Strengthen my improvisation, public speaking, presentation skills through creating and performing stand up routines
- Performed stand-up routines at in multiple venues during amateur mic night such as Einstein’s, The Corner Comedy Club
- Attended the 2019 Toronto comedy brawl and came in 4th place out of 12 contestants