

## Education —

### Bayview Secondary School

*International Baccalaureate Diploma*

Richmond Hill, Ontario

*September 2017 - Present*

- **Relevant Courses** - Chemistry (HL), Economics (HL), English (HL), Biology (SL), Calculus (SL), French (SL), Theories of Knowledge (SL), Extended Essay (Computer Science): Emerging quantum cryptography and encryption systems
- **Academic Performance** - Honour Roll (2017 - Present). Current Grade 12 weighted average: 97%
- **Alternative Coursework and Certification** - Harvard CS50x (edX) , Stanford Machine Learning (Coursera), Johns Hopkins Genomic Data Science (Coursera), University of California Berkeley Quantum Mechanics, Quantum Computation (edX), Caltech Quantum Cryptography (edX)

## Work Experience —

### The Pugh Lab, PM-OICR Translational Genomics Cancer Laboratory, UHN

*Student Researcher*

Toronto, Ontario

*October 2020 - Present*

- Conducted high-resolution examinations of tumour DNA, RNA and epigenetic marks from primary tumour biopsies and developed bioinformatic tools to support clinical laboratory workflows
- Advancing the development of CReSCENT ([crescent.cloud](#)) — a containerized, web-based, pipeline execution engine for standardized analysis of single-cell RNA sequencing data including normalization and cell clustering

### The John Dick Lab, Princess Margaret Cancer Centre, UHN

*Research Intern*

Toronto, Ontario

*September 2020 - Present*

- Profied tumour microenvironments using single-cell genome sequencing technologies to identify prognostic biomarkers and develop targeted therapeutics for Acute Myeloid Leukemia through genomic characterization
- Applied machine learning approaches to map mechanisms of disease to clinical outcomes and identify patient groups from their clinical signatures to quantitatively assess drug effectiveness in Acute Myeloid Leukemia

### Ryde AI

*Project Lead, Software Developer, and Co-Founder*

Toronto, Ontario

*April 2020 - Present*

- Currently developing open-source self-driving software, leveraging bluetooth to interface vehicle diagnostics with a smartphone application to enable self-driving features like automated lane centering and adaptive cruise control
- Developed [company website](#), mobile application, machine learning models, and conducted consumer feedback surveys, market analysis, and [investor pitches](#) (Amazon investor pitch finalists, Sparkteen accelerator finalists)

### Kidogo

*Project Consultant*

Nairobi, Kenya

*February 2020 - April 2020*

- Created an [innovation plan](#) to increase mamapreneur profits 43% and reduce childhood malnutrition with community sensitization workshops, sack farming pilot programs, a revamped curriculum research and development process and strategic partnership contracts

### Synbiolic

*Software Developer and Project Lead*

Toronto, Ontario

*December 2019 - April 2020*

- Creating a client-facing app for computational drug discovery (Microsoft Imagine Cup North American Finalist)
- Applied probabilistic deep learning and policy approximation to generate molecules and programmed retrosynthesis pathways to synthesize them to produce novel drug-ready molecules

### Sidewalk Labs

*Quayside Project Consultant*

Toronto, Ontario

*November 2019 - February 2020*

- Created an [innovation plan](#) to reduce household expenditures through a sharing economy digital infrastructure that monetizes personal assets (selected from 50 teams to present at Sidewalk Labs headquarters to C-suite)

**Baylor Scott and White Health***Summer Intern***Dallas, Texas***August 2019*

- Shadowed physician rounds working in fields of trauma, hematology, and internal medicine in both the hospital and out-patient clinic environment at Texas' largest healthcare system

**The Grover Lab, St. Michael's Research Centre***Keenan Research Summer Student***Toronto, Ontario***June 2019 - July 2019*

- Researched the transfer of endoscopic skills with an endoscopic simulation curriculum using EndoVR (CAE Healthcare) - a high-fidelity interventional virtual reality endoscopic simulator
- Supported UofT Medical residents (course participants) in troubleshooting difficulties with the virtual reality system, assisting with data entry tasks, patient roleplays and reporting simulation-collected performance metrics

## Leadership and Volunteer Experience —

**The York Region Presidents' Council***Prime Minister***York Region, Ontario***September 2018 - Present*

- Coordinated 11 executives to execute monthly general assemblies for students from 33 secondary schools (increased event attendance from 20 to 1,300 attendees in 3 years), and represent 130,000 students of the York Region District School Board at board meetings
- Secured \$30,000 in funding and created sponsorship materials to collect \$3,000 of in-kind donations to launch BLAST (Breaking Labels and Stigmas Together), the school board's largest annual mental health conference

**The Richmond Hill Mayor's Youth Action Committee***Director of Logistics***Richmond Hill, Ontario***September 2016 - Present*

- Coordinated internal team of 35 members for the conceptualization and execution of 5 annual, city-wide events to promote community involvement for youth of Richmond Hill, attracting nearly 300 event attendees
- Created sponsorship materials, collecting total \$1,500 worth of donations and event programmes/itineraires

**TEDxYouth Toronto***Youth Organizer***Toronto, Ontario***June 2018 - November 2019*

- Sourced event speakers (Olympic gold medalists, world-class performers, Dragons Den Investors and Masterchef Champions), and retained partnerships with Western Ivey, RBC, Shopify, and UofT, procuring \$15,000+ sponsorships
- Coordinated strategic marketing strategies; personally responsible for 20% of event applications

**Bayview Secondary School Student Council***Grade 9 Representative***Richmond Hill, Ontario***September 2017 - June 2018*

- Represented 400+ Grade 9 students and was invited to represent Bayview at the YRDSB Unity Rally, Ring of Peace
- Contributed to the execution of school events, fundraisers and semi-formal for over 1,500 students

**First Nations High-Five Initiative***Founder and Chairman***Thunder Bay, Ontario***September 2016 - September 2017*

- Coordinated internal volunteer team of 50 students to launch community-wide fundraisers, collecting \$4,500 in school supplies donations for the Nibinamik (Summer Beaver) First Nations Reserve in Thunder Bay, Ontario

**Karnataka Centre for Developmental Dissabilities***Teaching Assistant and Curriculum Developer***Bangalore, India***July 2017*

- Developed computational literacy and English curriculums and assisted with teaching in classroom setting of 20 students while volunteering 1-on-1 mentorship sessions during after-school hours
- Created 100-slide interactive life skills powerpoint series and mental health resource package for students

## Skills Summary —

- Programming Languages** - Python, R, HTML, CSS, Javascript, C/C++
- Platforms and Technologies** - Tensorflow, NumPy, Pandas, Scikit-Learn, Matplotlib, Git, Scanpy