



Education

- University of Toronto (UofT)

September 2018 - June 2023

- Honours Bachelor of Science, double major in Computer Science and Statistics
- Admitted as UofT Scholar - awarded to top ~4.5% of incoming class
- Check "university" on my website for a list of relevant coursework and description of courses

Experience

- Amazon | Toronto, ON • SDE Intern

May 2022 - August 2022

- Software Development Engineer Intern

- Advanced Micro Devices (AMD) | Toronto (Markham), ON • PEY Intern May 2021 - May 2022

- Language Runtime Team of Machine Learning SW Engineering Unit
- Novel language features for **HIP-Compute** (analogous to CUDA), and novel infrastructure projects for HIP.
- Utilized C++ to implement concurrency and image processing algorithms, and wrote various GPU kernels for projects, while working on and utilizing the ROCm tech stack, in particular HIP for compute tasks.

- Watchtower Robotics | Boston, MA • CS R&D Intern

May 2019 - August 2019

- Created and implemented procedure involving an **unsupervised label generation process** and **custom CNN**, synthesizing proprietary robot data with feature engineered audio data to predict to label pipe features, e.g., joints, with **90%+ test set accuracy**. The procedure cut data analysis time by 50% and got AI VC firm attention (Innospark).
- Developed procedure involving video stitching and tag detection for aerial valve marking.

Selected Projects

- Equator Music ([link](#)) (YouTube Music Player)

June 2017 - Oct. 2017

- Created the UI following my concept design, using various custom effects implemented in .NET's C# API.
- Properly utilized Google's RESTful API.
- Developed a responsive product website and an innovative advertising strategy a \$0 budget, which garnered over a thousand users.

- ProjectX (AI Competition)

Sept. 2021 - Jan. 2022

- Competed as part of UofT's ProjectX team, a AI competition with a \$75k prize pool
- Presented a **novel generative approach to predicting 3D representations of DNA interactions from DNA sequences** using transformers and a VAE-like approach, nearing SOTA performance.

- uDocumentGen ([link](#)) (uDocuGen2)

May 2019 - July 2019

- A fast, modern, and easy to use documentation generator released on the Unity Assetstore.
- Utilized **C# backend** to intelligently scrape complex project code/documentation into a JSON file.
- Utilized **React.js**, styled components, and various components/libraries to create a responsive front end.

- ASA Datafest UofT 2021 ([link](#))

May 2021

- Analysed 2019 drug use/misuse data in the US, and won **"Best Visualization"**, one of two prizes.
- Used logistic models to analyse drug misuse across drug categories with respect to income "level".
- Identified impactful drug survey questions for drug misuse across demographics.

Skills

Languages → **Python, C++, C, C#, Java, PostgreSQL, R, Stan, CSS/CSS3, JSX, ES6, JavaScript, JQuery**

Tools/Frameworks → **Git, CMake, CUDA, HIP, ROCm, Clang, Pytorch, Scipy, Keras, Sklearn, Tidyverse, cmdstanr, rstanarm, lme4, React.js, .NET, Bootstrap, Figma, Sketch, Adobe CC**

Principles → **Responsive UI, UX design, OOP, Descriptive/Inferential Statistics, ML theory, Agile Development**