


BILL SIYI LIU

COMPUTER ENGINEERING STUDENT

 siyi.dev

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EXPERIENCE

WEB DEVELOPER // TREASURY BOARD OF CANADA

// JAN - APR 2020

- > Front-end [web app development](#) using React, JS, SCSS, JSON, YAML
- > Helped create data visualization tools for public use
- > Used Lodash for data manipulation and D3 for certain visualizations
- > Created back-end communication with MongoDB using Mongoose

DEVELOPER INTERN // EDSBY // FEB - JUN 2018

- > Worked with python database scripts
- > Tested servers and maintenance status
- > Identified and resolved bugs on product
- > Conducted quality assurance assessments

DATA ANALYST INTERN // DECISION RESOURCES GROUP // JUL - AUG 2017

- > Worked with live data sets from the healthcare industry
- > Utilized SQL and R for database manipulation and statistical computing
- > Performed market tracking and price tracking

STUDENT TRUSTEE // YORK REGION DISTRICT SCHOOL BOARD // AUG 2018 - JUL 2019

- > Elected by the 132,000 students of York Region DSB
- > Provided integral input on policy, curriculum, budget, and programs
- > Created suggestion publication for the Ontario Ministry of Education
- > Directed board wide events, meetings, and seminars

PROJECTS

<https://devpost.com/bill-liu/>

<https://github.com/bill-liu/>

COMPOSER COMPANION // TORONTO HACKS II

- > A machine learning web app that composed music by remixing scores
- > Used Tensorflow to create a new score through a recurrent neural network
- > Algorithm used Long Short Term Memory to emulate human creativity

HACKER HUNTER // MHACKS 11

- > A modern twist on the classic game "Assassins" on mobile devices
- > Used Near-Field Communication (NFC) to relay game info in real time
- > Used Google Firebase for backend and Twilio API for text communication

SUGAR³ // PENNAPPS XVIII

- > An iOS diet journal app that showed nutrition quantities in augmented reality
- > Scanned barcodes of processed food items add to a tracking journal, relay nutrition amounts through Nutritionix, and constructs 3D models using AR Kit

CARNIVAL - HIGH SCHOOL STUDENT COUNCIL

- > Director role orchestrating an event for 1800+ students
- > Optimized QR code ticketing system and streamlined event coat checks
- > Developed non-conflicting schedules for 60+ volunteers and staff
- > Organized rides, food trucks, DJs, club activities, and full event layout

SKILLS

LANGUAGES

[Javascript](#) // [Java](#) // C++ // [Python](#) // [HTML](#) // [\(S\)CSS](#) // [MySQL](#) // R

FRAMEWORKS

React // Lodash // [MongoDB](#) // [Firebase](#) // [Android Studio](#) // Excel

EDUCATION

UNIVERSITY OF WATERLOO

> Candidate for Bachelor's of Applied Science in Honours Computer Engineering, Coop

RICHMOND HILL HIGH SCHOOL

> Valedictorian of graduated class of 400 students
> Graduated with Specialist High Skills Major in Information Technology
> AP Scholar, completed 11 AP Exams

AWARDS

UNIVERSITY OF TORONTO OPERATIONS RESEARCH COMPETITION // 2018

> Third Place out of two hundred delegates
> Created most efficient travelling salesman algorithm utilizing Prim's Algorithm

UNIVERSITY OF WATERLOO

> Distinction in Canadian Computing Challenge (S)
> Pascal/Galois/Fryer - school champion, Pascal gold medalist with perfect score

MARKHAM ANNUAL YOUTH PITCH IT CONFERENCE // 2018

> First Place and Best Overall Business
> Created a functional app to Google search using text messages without the use of mobile data

INTERESTS

> [TEDx Talk](#) on improving sleep // 2019
> [TEDx Talk](#) on self-inducing positive chemicals // 2018
> Hosted [Lunarhacks](#), Mentored at [Urbanhacks](#) and [Lunarhacks](#)
> Executive member on [Comp Sci](#) & Robotics // 2015 - 2019
> Elected member on [Student Council](#) // 2015 - 2019
[Cursor Club](#) // 2017 - 2020 // [L.I.G.H.T. Org](#) // 2016 - 2018 // [YN Alliance Org](#) // 2016 - 2018 // Alpine Ski Team // 2017 - 2019
> SHAD Waterloo Alumni // 2017