

RYAN TSANG

647-515-5925 | ryan.j.tsang@gmail.com | <https://github.com/rtsng> | [personal website!](#)

SUMMARY

- Proficient in Python, HTML, CSS, Javascript, Git, Java, C, Racket, and Scheme.
- Experienced with React-based frameworks, as well as Gatsby (JSX).
- Interested in machine learning, genetic algorithms and aesthetic front-end design.
- Outgoing, approachable, adaptable, and will finish any task that I start.

PROJECTS

Earth Sense

[github](#) [devpost](#)

- 4 Sensors and a microcontroller sending data through Firebase updating live on a react-based website to determine levels of pollution in an area.
- Simulated heat-map displayed on a google maps API, with a pathfinding software to help users avoid areas of pollution.

Sociiz

[github](#)

- Web-based application built with Javascript, HTML, CSS, Flask, and Python to promote social distancing.
- Updates the website live on a user-basis providing info pages for each location.
- If the program deems the location to be crowded, an SMS text is sent to all users of the application.

Memorizing app

[github](#)

- Phone application made in Swift which takes a chunk of text and slowly breaks it down for the user to assist them in memorizing any piece of text.

Tetris AI

[github](#)

- Self-learning genetic algorithm-based Tetris AI coded in Javascript which you can watch evolve on its own in real time right [here!](#)

Personal Website

- Website made with Gatsby which you can [check out here!](#) You may also view it on [github](#).

Text to audiofile

[github](#)

- Python executable which when given any string, will retrieve the first youtube search result, and convert it into an audiofile of any format (m4a, mp3, mp4, wav, etc...)

EXPERIENCE

Competitive Coding

- CCC 2020 - Achieved distinction in the Canadian Computing Competition.
- Attended several hackathons including Hack the North, NASA Space Hacks, and others.
- Winner at Hack the Hammer 2 — Canada's largest High School Hackathon.

Work Experience

- Tutor — Jan 2017 - Aug 2020
- Tutoring students ages 6 - 16 in subjects ranging from English, French, Math to Advanced Functions, Calculus, Vectors, and competition math.
- Badminton Coach — Jul 2017 - Aug 2018
- Coaching students of all ages, teaching fundamentals, and training those who play competitively at a provincial level.

EDUCATION

- Candidate for a Bachelor of Computer Science, University of Waterloo, 2020 - Present
- Currently a 4.0 GPA (91.4%)
- International Baccalaureate Diploma, St Roberts Catholic High School, 2016 - 2020