

Renkui (Gary) Ye

University of Waterloo
Electrical Engineering

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github.com/raygye



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Technical Skills

- Languages: Java, C++, Javascript, Python, HTML, CSS
- Technologies: JavaFX, jQuery, AJAX, REST, Git, XML

Projects

TTC Predictions

<http://ttc.raygye.ga>

- Constructed a bus predictor web application using **Javascript**, **jQuery**, **Google Maps API**, and **Nextbus API**, presenting estimated times of arrival (ETAs) and vehicle locations
- Retrieved and processed **XML** files with **AJAX** requests
- Periodically updated live ETAs and a map that displayed routes and live bus locations

Hush

- Developed an application in **C++** that **encrypts all text-based files** or strings using **one-time-pad** encryption along with an interactive user-interface
- Created algorithm with **bit manipulation** and **dynamic memory** allocation
- Ensured ASCII only output for precise and errorless interpretation using **Base85**
- Designed user-oriented UI for both encryption and decryption in **Java** and **JavaFX/FXML**

MightyMouse

- Implemented **recursive depth-first-search** in **Java** and displayed the process to the user through the analogy of a mouse searching for cheese using **JavaFX**
- Created as an aid to educate underclassmen on the topic of search algorithms and graphs

Education

University of Waterloo - ECE

- Candidate for Electrical Engineering Graduating 2024
- Relevant courses: ECE150 (Programming in C++), MATH 119 (Calculus II)

Work Experience

Lifeguard

Pro Line Pool & Spa Services

June 2018 - July 2019

Toronto, ON

- Sole supervisor of 25+ patrons, handling public relations and ensuring a compliant and hazard-free environment
- Performed necessary maintenance such as vacuuming and filter pump maintenance

Interests

- Blockchain technology (market growth and implementations beyond cryptocurrency)
- Building mechanical keyboards
- Badminton (OFSAA/Provincial medalist and high school captain)
- Pen-spinning