

# YOUSOF HOSNY

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## SKILLS

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Languages:	C++, Python, C, Bash, JavaScript, Racket, SAS, R, HTML/CSS
Technologies:	React, Node, Pygame
Software / Tools:	Linux, Vim, GNU tools, Git, Github

## EXPERIENCE

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<b>University of Waterloo</b> <i>Teaching Assistant</i> <ul style="list-style-type: none"><li>Marked student assessments for MATH138 (Calculus II)</li></ul>	Waterloo, ON Winter 2021
<b>The Product Initiative - ConnectEd</b> <i>Software Developer - Full Stack</i> <ul style="list-style-type: none"><li>Worked as part of the developer team creating an app to connect students by matching based on common interests</li><li>Developed a prototype app using serverless stack with React Native and Firebase cloud services. Prototype demonstrated user authentication flow, base user interface design, and user matching.</li></ul>	Toronto, ON Summer 2020
<b>3D Diagnostix</b> <i>Web Developer Intern</i> <ul style="list-style-type: none"><li>Created a mobile friendly (HTML/CSS) table lay-out for the in-house CRM used by employees to view current client information and orders</li><li>Introduced to collaborative software development and RESTful API design</li></ul>	Boston, MA Summer 2018

## PROJECTS

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**Straights Card Game C++**  
Object oriented implementation of the Straights card game with use of Model View Controller and Strategy design patterns. Adhered to RAII principles through use of smart pointers and STL containers and algorithms.

**Coursaver Python, Selenium**  
Automates two factor authentication and downloading of online content for multiple UW Learn courses. Designed to allow quick and convenient saving of all course content for future reference.

**Cliffed Ball Python, Pygame**  
A desktop game with a full user interface (settings, home page, game, store page) and ability to save game state.

**Conway's Game of Life C++**  
Implementation of Conway's game of life using object oriented observer design pattern. Allows for both text-based and graphical interface simultaneously using multiple observers.

**Personal Website HTML, CSS** hosny.ca  
A modern minimalist website featuring R Markdown/LaTeX notes for courses completed at UW.

**Maze Generation C++**  
A terminal-based maze generator to visualize recursive backtracking algorithm for maze generation.

## ACHIEVEMENTS

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<b>Waterloo Euclid Senior Mathematics Contest - Distinction</b>	University of Waterloo
<b>Waterloo Senior Canadian Computing Contest - Distinction</b>	University of Waterloo
<b>Cyber Patriot National Medalists</b> Achieved silver medal as a team in the Canadian cyber security competition finals.	Air Force Association Cyber Patriot May 2019

## CERTIFICATIONS

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<b>CPA - C++ Certified Associate Programmer Certification</b> Object-oriented model and its implementation in C++	C++ Institute Jan 2018
<b>SAS - Certified Base Programmer for SAS 9</b> Manipulate/transform data, combine SAS data sets, summary reports using SAS procedures	SAS® Jun 2018

## EDUCATION

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<b>University of Waterloo</b> BCS Computer Science (Class of 2023): Cumulative GPA: 91% (3.94/4.0)   Major (CS) GPA: 94%	Waterloo, ON
<ul style="list-style-type: none"><li>President's Gold Scholarship - Admission scholarship \$4,000</li></ul>	