

# Name here

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## EDUCATION

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*Bachelor of Computer Science*

Sep. 2017 - Present

*BCS Computer Game Development, Co-op Option*

Carleton University, Ottawa ON

- 2<sup>nd</sup> Year Undergraduate, CGPA 10.8/12.0 (A-)
- Dean's Honour List, 1<sup>st</sup> Year
- Expected Graduation: May 2022

## AVAILABILITY

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Available for 4 or 8 months beginning May 2019.

## RELEVANT SKILLS, EXPERIENCES AND ACCOMPLISHMENTS

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### Technical Skills

- Built a 3D graphics rendering project that outputs a procedurally generated building mesh object in the 3D openSCAD scripting program, then translated the code to the C++ environment by implementing the CGAL library to ensure more added features, allowing the clients to save the amount of time required to generate cities or buildings
- Assembled various projects and assignments in C by implementing function libraries and directly modifying program memory allocation and operating system processes within a Linux virtual machine provided by Carleton University
- Developed an XCode mobile application in Swift by implementing a clean interface in an object-oriented environment
- Programmed multiple class assignments in Java, using various data structures, algorithms and debugging tools to create more efficient programs in an object-oriented environment within the Eclipse and IntelliJ IDE
- Designed and tested various projects and assignments in Python by implementing data structures and physics-based functions to create different computer game engines
- Upgraded various web application assignments in JavaScript by overhauling, adding and debugging code in preexisting client, server and HTML files with the aid of the Node.js framework, databases such as SQL and APIs, creating more efficient and user-friendly interfaces

### Analytical Skills

- Developed and debugged various project code for assignments, carefully analyzing different types of errors or modifying code to improve efficiency and performance, as well as implementing bug fixes leading to decreased runtimes and more organized code
- Acting as a Teaching Assistant, graded various class assignments or tutorials, analyzing code for following the requirements given or understanding where the student failed the requirements

### Communication Skills

- Collaborated with and helped other undergraduate and graduate students, discussing various programming methods and ideas to more efficiently create and develop programs, while also gaining new viewpoints
- Acting as a Teaching Assistant, conveyed various programming concepts such as functions, conditional statements or recursion to students in an introductory programming course
- Discussed various project ideas, progression and future goals with a Carleton University professor on a weekly basis and presented them to a graduate class for a research internship

## WORK EXPERIENCE

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### *Teaching Assistant*

Jan. 2019 – Present

#### **Carleton University, Ottawa ON**

Teaching Assistant for a first year introductory computer science course

- Assisted students with coding, debugging and learning programming theories such as recursion, iterations, conditional statements and functions within the Python programming language during class tutorials
- Held weekly office hours to aid students with any class tutorials, assignments or any general programming questions, providing students with a positive learning environment
- Responsibly graded numerous class assignments, ensuring students are marked fairly based on the assignment requirements, while ensuring that assignments were marked on time with well written comments

### *Research Intern*

May. 2018 – Jul. 2018

#### **Carleton University Dean's Summer Research Internship, Ottawa ON**

Collaborated with a Carleton University professor to research and develop a graphical based project

- Researched and programmed a procedural 3D building program using openSCAD and C++ by implementing the CGAL library, applying various graphical transformations and operations on polyhedron shape objects, which resulted in a programmatically generated building that can be implemented into various computer games or architectural city designs, thereby decreasing the work required to manually create each building object individually
- Wrote a 12-page unpublished report describing the various processes and algorithms used to create the project and how the user can implement it into their own programs
- Presented the project to the Carleton University Graduate Graphics, Imaging, and Games Lab class, discussing the key aspects, goals and uses of the project

## APPLIED PROJECTS

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### *Class Project*

Oct. 2018 – Nov. 2018

#### **Quantum Qurling**

- Collaborated with a partner to design from scratch, a web application game using JavaScript and HTML to create a multiplayer 2D curling game, implementing various modules such as Socket.IO to ensure a seamless, lag free connection between players which was posted on the class website as a solution for the assignment

### *Individual Project*

Sep. 2018 – Oct. 2018

#### **Islamic Prayer Counter**

- Solely developed an unpublished IOS application in Swift intended for mosques to keep track of their client's total prayers by implementing an easy to use, interactive user interface while conforming to Apple's clean mobile application design

### *Class Project*

Mar. 2018 – Apr. 2018

#### **The Creature Beneath the Lake**

- Designed a text based adventure game in Python for a class assignment with a key focus on implementing dictionaries and reading text and CSV files which provided an enjoyable and mainly interactive fiction driven experience to the player by communicating details of the fictional world, such as story, lore, characters and the environment

### *Class Project*

Jan. 2018 – Feb. 2018

#### **Rogue Order**

- Developed a 2D based platformer game in Python, using the Pygame library by implementing various data structures and algorithms such as dictionaries, trigonometric and physics-based functions that built upon source code provided by the university class