

Isabelle Sauvé

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Education






Bachelor of Software Engineering, Business Option

University of Waterloo, Sept 2016 – April 2020

Professional Experience

- May-Aug 2018 • **Game Engine Programmer Intern**, Ubisoft Toronto, ON
C++
 - › Improved framerate of game by 0.5ms by implementing low-level optimizations on a bottleneck subsystem of the game
 - › Investigated framerate spikes with runtime instrumentation-based profiling tools & used modern C++ practices to improve speed of code & memory usage in problematic areas
 - › Owned & orchestrated a major integration in the build system
- Sept-Dec 2017 • **Software Engineering Intern**, DataDog Paris, France
Golang, Python
 - › Built a secure web app which enabled Windows users to interface with DataDog Agent 6; component shipped to thousands of customers in beta release & received very positive feedback
 - › Generated a 200% increase in throughput of Cloud Foundry metric collection system by using Golang concurrency best practices to optimize metric intake
 - › Performed efficiency analysis on a bottleneck component and implemented optimal design based on results
- Jan-April 2017 • **Undergraduate Research Assistant**, University of Waterloo Waterloo, ON
JavaScript, Node.js
 - › Reduced code complexity and increased app scalability by refactoring system top to bottom
 - › Increased security, performance, and reliability of web app by integrating use of websockets
- May-Aug 2016 • **App Developer**, University of Waterloo 'Autonomoose' Waterloo, ON
JavaScript, PHP
 - › Singlehandedly designed and developed web app with responsive front end, RESTful back end, and SimpleSAML user authentication

Projects

- 3D Rendering Engine** Dynamic 3D scene navigable as a 1st-person character, rendered in C++ via direct interfacing with the OpenGL API. Features include custom GLSL shaders implementing Phong model, 3D model loading & terrain generation via heightmaps. [ISauve/3D-Rendering-Engine](#) 
Personal project, 2018
- RPG** 2D adventure game complete with combat & asset acquisition mechanics. Built in multithreaded C++ using SFML as an environment for OpenGL. [ISauve/Mini_RPG](#) 
Personal project, 2017
- NatalNet** SMS and web app that increases the accessibility of pre- and post-natal care for women in rural communities of Bangladesh. [Devpost](#) 
Team of 5, 2016
[Break Inequality Hackathon Grand Prize Winner](#)
[Google Technology Competition Winner](#)
Featured on [Google Students Blog](#) 
- NutriFence** iPhone app for people with dietary restrictions which uses OCR to scan food labels and determine if an item is suitable for their diet. [Devpost](#) 
Team of 4, 2016
[ArchHacks Best Nutritional Hack Winner](#)