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++
- Optimized internals of database system by improving in-memory cache; increased framerate of game by 0.4 FPS
- 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
- Wrote a core component of new software which shipped to thousands of customers in beta release
- 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
- 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
- Singlehandedly designed and developed web app with responsive front end, RESTful back end, and SimpleSAML user authentication

Projects

3D Rendering Engine — *Personal project, 2018*
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*

RPG — *Personal project, 2017*
2D adventure game complete with combat & asset acquisition mechanics. Built in multithreaded C++ using SFML as an environment for OpenGL. *ISauve/Mini_RPG*

NatalNet — *Team of 5, 2016*
SMS and web app that increases the accessibility of pre- and post-natal care for women in rural communities of Bangladesh. *Devpost*
Break Inequality Hackathon Grand Prize Winner
Google Technology Competition Winner
Featured on Google Students Blog

NutriFence — *Team of 4, 2016*
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*
ArchHacks Best Nutritional Hack Winner