

Isabelle Sauvé

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Education

Bachelor of Software Engineering, Business Option
University of Waterloo, September 2016 – April 2020

Professional Experience

- Sep 2019
- Current
- Backend Developer Intern**, Shopify Waterloo, ON
Ruby on Rails
› Building new features to improve backend web services for Shopify Plus
- Jan-Apr
2019
- FaceTime Engineering Intern**, Apple Inc. Cupertino, CA
Objective-C, Swift
› Independently designed & implemented an innovative prototype of new communication application features using next generation technology
› Prepared & delivered technical presentations & demonstrations to upper management & marketing
› Delivered a new cross-platform feature which shipped to millions of users across the globe in iOS 13
- 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
› Investigated framerate spikes with runtime instrumentation-based profiling tools & used modern C++ practices to improve speed of code & memory usage in problematic areas
- Sep-Dec
2017
- Software Engineering Intern**, DataDog Paris, FR
Golang, Python
› Generated a 200% increase in throughput of metric collection system by using Golang concurrency best practices to optimize performance of multithreaded metric intake component
› Performed efficiency analysis on a bottleneck component & implemented optimal design based on results
› Built a secure web app which enabled Windows users to interface with DataDog Agent 6
- Jan-Apr
2017
- Undergraduate Research Assistant**, University of Waterloo Waterloo, ON
JavaScript, Node.js
› Reduced code complexity & increased app scalability by refactoring system top to bottom
- May-Aug
2016
- App Developer**, University of Waterloo 'Autonomoose' Waterloo, ON
JavaScript, PHP
› Singlehandedly designed & developed web app with responsive front end, RESTful back end, & 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 & web app that increases the accessibility of pre- & 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