Camille Walters

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EDUCATION

UNIVERSITY OF WATERLOO
BASc, Mechatronics Engineering
Class of 2022

SKILLS

Software Development Skills

Game Development
- C#
- Unity
- High-Level Shader Language (HLSL)

Web Development
- Javascript
- React
- Azure
- Go
- Hugo
- Terraforms
- CSS
- Ansible

Other
- Docker
- Python
- C++
- C
- Java

Other Technical Skills

- Arduino
- ROS
- GPU programming
- User-centered design
- Hardware prototyping
- Microprocessors and digital logic

Soft Skills

- Adaptable and a fast learner
- Highly motivated and dependable
- Enjoys receiving and providing feedback
- Collaborative, curious and enjoyable to work with
- Proactive, forward-thinking and quality-oriented

EXPERIENCE

UNITY | Software Engineer, Simulation
July 2022 - January 2024

- Worked on Simulation Pro, a cross-platform tool used for real-time 3D modeling for industry applications, with **ROS** integrations with **Unity** and **C#**
- Developed a Unity package that emulates photosensors such as lidars and cameras, optimizing performance using **GPU programming** with HLSL and job systems, utilizing **Vulkan** bindings to support ray tracing on Linux, and non-visible wavelength support
- Connected **hardware components**, such as Velodyne and Ouster lidars, to simulation environment to compare simulated and measured data
- Initiated and established valuable partnerships throughout the company to evangelize the product, leading to product renewals and sales to high-profile clients, resulting in over **$63,000** revenue
- Provided onboarding support to new teammates, including advice and resolution of technical problems
- Performed full stack development on a web application for simulation using **React, Azure** and **Terraforms** in a pod-style team structure

Software Engineering Intern
April 2021 - September 2021

- Implemented an **automated testing** framework from the ground up in Unity Test Framework and **YAML** in C# for Reflect, a tool that generates interactive 3D models from architectural software

DEMATIC | Virtual Facility Emulation Intern
January – December 2020

- Modelled warehouse logistics solutions with Unity and C#
- Created a tool to easily verify conveyor connectivity for straight, curved and helical conveyors using complex geometrical principles
- Designed and implemented an ergonomic graphical user interface including creating custom components using **XML, CSS** and C#
- Developed controller communications, including messaging handler, for emulation on a **RESTful API**
- Created integration and unit tests in Unity Test Framework (NUnit) for the REST handler

Automated Perfomance Testing Co-op
April – August 2019

- Wrote, maintained and utilized **Ansible** scripts to remotely install builds on remote servers
- Created environment for automated testing using Jenkins to deploy Azure VMs, install software to be tested, run tests, and collect results

PROJECTS

ALIEN FARMING GAME | Unity, C#
I'm creating a tranquil and immersive 2D farming game set on a distant planet that combines my love for robotics and game development. I intend to leverage Unity's Muse to create a visually enchanting experience for players.

CUSTOM SMART HOME SYSTEM | Arduino
This is a cloud-connected, customized, cost-effective smart home, with the goal of being energy efficient and secure. It was created with an Arduino Nano 33 IoT, low cost thermometers, and the Blynk platform.