

DIVIT SHARMA

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Skills Summary

Languages	C++, C#, Python, C, Java, Bash, Scheme, HTML, CSS, JavaScript
Tools	Git & Perforce, Visual Studio, Unity3D (C#), Unreal Engine 4, Qt, ROS (C++), GTest, Windows & Linux
Expertise	Proficient in C++ & OOP, experienced with Qt, Robot Operating System (ROS) and game development tools

Experience

Game Developer - Dead by Daylight

Montréal, QC
Jan.—Apr. 2019

BEHAVIOUR INTERACTIVE

- Contributed to continuous development of Dead by Daylight, a large multiplayer game with an average 17K CCU
- Designed and proposed software architecture for an upcoming playable character and their abilities, focusing on modularity, scalability, performance and network synchronization
- Prototyped and implemented the new mechanics and abilities in Unreal Engine 4 (C++), working closely with game designers, VFX and sound artists, other programmers and tech leads
- Optimized performance-heavy gameplay elements by refactoring tick-based mechanics to event-based

Product Developer

Waterloo, ON
May—Aug. 2018

FORD MOTOR COMPANY

- Developed a mock frontend for SYNC (Ford's infotainment system) using C++/Qt, serving as a lightweight and fast alternative to SYNC used by many teams for development and testing
- Performed unit testing on multi-threaded code using GTest and GMock, refactored code to increase testability

Simulation Engineer - Mapping

Waterloo, ON
May 2017—Apr. 2018

AUTONOMOOSE - UW SELF-DRIVING CAR

- Researched and proposed a high-detail map format for storing lane-level information for self-driving cars
- Oversaw creation of the map from our own collected road data into simulation as ROS (Robot OS) modules
- Deployed modules to query the HD road data while driving, giving the car runtime localization, navigation, informed decision-making, and meaningful prediction of other vehicles
- Ran successful autonomous driving demos in the real world for financial partners
- Refactored thousands of lines of code to better adhere to OOP principles and cut compile time by a half

Projects

McGill Game Jam - Online Multiplayer Shooter 🎮

Jan. 2018

- A class-based 3 vs. 1 hero shooter, made in 48hrs in a team of 3 using Unity3D's networking architecture and relay server
- Game features procedurally generated levels, custom character selection and lobby, and over-the-internet P2P gameplay

Java Vector Drawing Software 🎮

Sep. 2018

- A vector drawing program built with Java's Swing toolkit as a project for a third-year User Interfaces course
- Built to demonstrate OOP patterns (like MVC), modular design, and responsive UI. Earned a mark of 96%

"Google Maps" in Augmented Reality - WearHacks Hackathon 🎮

Jul. 2017

- Used Maps API and Vuforia (AR plugin for Unity3D) to superimpose a navigation interface onto a video stream
- Directions update as steps are completed, showcasing possibilities for intuitive, distraction-free navigation with AR

Education

University of Waterloo

Waterloo, ON
Sep. 2016 - Apr. 2021

CANDIDATE FOR BACHELOR OF COMPUTER SCIENCE, TERM 3B

- Relevant courses: Object Orientated Programming, Algorithms, Data Structures and Data Mgmt., User Interfaces, Intro to Database Management, Foundations of Sequential Programs