

# Bhavil Gupta

Junior Software Engineer

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## PROJECT EXPERIENCE

### Vishv Game Engine

April 2019 - Present

A custom made Game Engine from scratch using C++ and DirectX 11. The engine has the following features:

- ★ Uses a component-based system for game object management
- ★ A full graphics library supporting models, animations & shaders
- ★ AI library supporting pathfinding, A\*, steering behaviors & FSM
- ★ Math library for all the important 3D math and linear algebra

### Lune Bots

July 2019 - June 2020

It is a fast-paced 2D platforming shooter game, that was developed in a team of 4 programmers, 3 designers & 1 artist.

- ★ Designed and implemented various AI systems including dynamic graph generation, custom pathfinding, and state machine module

### Corporate-Sim

March 2020 - June 2020

It is a solo project where I developed a factory simulation game in Unity similar to the game Satisfactory, the project uses runtime dynamic mesh generation using bezier curves & event system for writing modular code without dependencies.

### Self Learning AI

May 2018 - June 2018

In this project, I used Unity and C# to make a self-learning neural network that uses genetic evolution method to learn how to drive on a specified track.

## EDUCATION

### LaSalle College Vancouver — B.Sc in Game Programming

October 2017 - June 2020

## SKILLS

C++/C#

Unity

AI systems for games

3D Graphics

DirectX 11 & HLSL

3D Geometry

Linear Algebra

VSTS, SourceTree, GitHub

## CONNECT



<https://bit.ly/37UeU1X>



<https://bit.ly/2HZb6C1>

## HOBBY & INTERESTS

Art

Movies

Co-Op Games