# **Dhiraj Magdum**

Aspire to build a career in game development.

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LinkedIn
GitHub
ArtStation
Portfolio

#### Skills:

Programming Languages : C++, C#(Intermediate).
 Game Engines : Unreal engine, Unity

• Version Control : Git

• Programming Design Patterns : MVC, Singleton, Observer, State.

• Software's : 3ds-Max, Z-brush, Substance designer, Spark-Ar.

#### **Projects:**

- **Delta Unit** (Unity Engine) : (GitHub Link) (Video)
  - Implementation of MVC design pattern for player tank, enemy tank and bullets.
  - Implementation of generic singleton class and generic object pool. Use of scriptable objects for creating different types of tanks. Use of observer pattern for implementing achievement system.
  - Implementation of state design pattern for different states of enemy tank.
- Pacman (C++ & SFML) : (GitHub Link) (Video)
  - Use of SFML library for graphics and animation. 2D grid system for player and ghost movement.
  - Clock system for animation and to make game framerate independent. Implementation of collision system.
  - AI controlled ghosts with three different states. Randomized difficulty curve as per level.
  - Implementation of power-up's. Level win and lose conditions.
- Castle Guard (Unreal Engine): (Video)
  - Unreal engine reflection system and garbage collection. Menu system to save and load the game.
  - Character movements and melee combat system. Player and enemy animations.
  - AI for enemy chasing and attack, weapon equipping, player stats like health, stamina and collectables.
  - Sound effects, particle systems, pickups, HUD elements and gameplay mechanics.
- Mars Marine (Unreal Engine Blueprints) : (Video)
  - Top down wave based shooter game. Unreal motion graphics to create player HUD.
  - Character movement, animation blueprints, animation montages, state machine and blendspaces.
  - AI navigation for enemy. Player shooting, health / death for player and enemy.
  - AI wave spawning. Sound and particle effects. Pickups.
- **Cinematic Creator** (Unreal Engine) : (Video)
  - Lighting, camera types, sequences, sequencer triggering, camera movement, cutscenes, rendering and sound addition.
- Game Props : (ArtStation)
  - Optimization of props by creating LOD's and modular structure. Texture optimization.
  - 3d modelling (3ds-Max), sculpting (Z-brush), UV unwrapping,
  - Texture creation (Substance designer / Painter and Photoshop), rendering (Marmoset Toolbag).

### **Education:**

Full Stack Game Development - Outscal, Delhi.

( Jul 2021 - Present )

Diploma In Game Art - Frameboxx, Mumbai.

(Sep 2020 - Aug 2021)

• B.Tech Mechanical - Walchand College of Engineeing, Sangli. (CGPA - 7.22)

(Aug 2016 - Sep 2020)

• HSC - State board - A.N.N.Jr. College, Jaysingpur. (89.08 %)

(June 2014 - July 2016)

## **Certification:**

- Unreal Engine C++ Developer. (Link)
- Unreal Engine Blueprint Developer. (Link)
- Cinematic Creation For Game Design. (Link)