

# Dhiraj Magdum

Aspire to build a career in game development.

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[Portfolio](#)

[GitHub](#)

[LinkedIn](#)

[ArtStation](#)

## 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 design pattern for implementing achievement system.
  - Implementation of state design pattern for different states of enemy tank. AI for enemy tank.
  - Shooting mechanism for both player and 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](#))
  - Character movements and melee combat system. Menu system to save and load the game.
  - AI for enemy chasing and attack. Player and enemy animations. Weapon equipping mechanics.
  - Player stats, 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 tools to create player HUD.
  - Character movement, animation blueprints, animation montages, state machine and blendspaces.
  - AI navigation for enemy. Player shooting, health and death for player and enemy.
  - Wave spawning mechanism. 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 (3ds-Max).
  - 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 Engineering, 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](#))