



## SHANTANU SHRIPAD MANE - GAMEPLAY PROGRAMMER

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### EDUCATION

**University of Utah** - *Expected Graduation - May 2019*

Pursuing a Masters in Entertainment Arts & Engineering - Game Engineering Track

**K.J. Somaiya College of Engineering, Mumbai, India** - *June 2015*

Secured a Bachelor of Engineering in Computer Engineering with *First Class Honors*

### SKILLS

**Programming Languages** - C++, C#, Blueprints

**Game Engines** - Unreal Engine 4, Unity

**IDEs** - Visual Studio 2015, Visual Studio 2017

**Version Control** - Perforce, Git

**Animation** - Maya, Flash

**Software Documentation** - UML, Dia

### GAME PROJECTS

**Action Game Project** - *Gameplay Programmer - UE4, C++, Blueprints*

- ♦ Creating a combat system similar to that of Bayonetta, focusing on player input and combat mechanics.
- ♦ Implemented a system for chain attacks/combos using a tree structure and improved responsiveness to input for attacks.
- ♦ Working on an effective system for hit information of and reactions to attacks.

**Project Jericho** - *Gameplay Programmer - UE4, C++, Blueprints*

- ♦ An action-adventure game with your fast-paced traversal techniques as tools to conquer giant mechanical monsters.
- ♦ Implementing the player character's 'Thrusters' and the mechanics tied to it like a speed boost, its 'fuel', and camera work for high-adrenaline action-style gameplay.
- ♦ Contributing to player-side design to create a unique character and resonating empowering abilities that make the player feel elegant and fierce.

**MaVRick** - *Gameplay Programmer - UE4, Blueprints*

Published April 2018 on [Play Store](https://play.google.com/store/apps/details?id=com.shantanu.mane.mavrick) and [itch.io](https://itch.io)

- ♦ An action game where you pinball and charge at enemies with your fists to send them flying out with an explosion.
- ♦ Implemented a spawn system allowing to create desired intensity in the game by tuning the difficulty of each set of spawned waves and the threshold to spawn every new wave.
- ♦ Worked single-handedly on the 'Fighter' enemy AI that blocks attacks from the front, needs to be stunned from behind before being able to take damage and can do a short-range charge at the player.
- ♦ Setup complete animation state machines for the 'Fighter' and 'Shotgunner' enemies.
- ♦ Designed player abilities and enemies to create intense and high-octane gameplay.

**Warlocks** - *Gameplay Programmer - Unity, C#*

- ♦ A recreation of a MOBA-esque King-of-the-Hill PvP where you cast spells to fight and defeat other players.
- ♦ Worked on MOBA-style controls, unit selection, movement and spell-casting to be used with a mouse and keyboard.
- ♦ Implemented Object Pools for creating spells/abilities before the start of the game as opposed to on-demand creation during gameplay to eliminate the associated overhead.
- ♦ Implementing a well-rounded spell system with ability-specific interactions, spell-cast types, spell levels, cast times, and cooldowns and a robust damage system to tie into it.

**Memory Manager** - *System Programmer - C++*

- ♦ Created a memory manager in C++ that passes a robust unit test.
- ♦ Created a Dynamic Size Heap Allocator to allocate memory of requested size from the reserved heap of memory.
- ♦ Implemented Fixed Size Allocators for certain allocation sizes that use arrays of bits to track their memory blocks.