# Pronay Peddiraju

Gameplay Systems Engineer – Final Strike Games, Bellevue WA

## **Contact Info**

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## **Highlighted Skills**

C++ Programming Multiplayer Gameplay Systems Linear Algebra & Trigonometry Physics Programming Profiling and Optimization Cross-Platform Development

#### Education

Master of Interactive Technology, Software Development for Games SMU Guildhall, Plano, TX

Bachelor of Technology, Computer Science VIT University, Vellore, India

#### Research

Procedural Content Generation using Markov-Chains and Wave Function Collapse

Agent Based Performance Analysis of Strategic Algorithms in Prisoner's Dilemma

Research Analysis of Development Pipelines in Augmented and Virtual Reality Technologies

#### Software

Unreal Engine 5, 4 Perforce JIRA RenderDoc PhysX Coherent Gameface Unity 3D

# **Collaborative Projects**

#### Unannounced AAA Title

Final Strike Games, Bellevue, WA

12 Member Team (3 Programmers)

(Gameplay Systems Engineer | Unreal Engine 5 | May 2022 – Present)

• Working on an unannounced cross-platform AAA game systems including but not limited to character, camera and controls, player interactions, networking and replication, world streaming, asynchronous systems, profiling and optimization and more.

Borderlands 3, Tiny Tinas Wonderlands Enduring Games LLC, Austin, TX (Software Engineer | Unreal Engine 4 | July 2020 - Feb 2022)

- Engineered cross-platform plugin for Gearbox, enabling seamless multiplayer gameplay across Xbox, PlayStation, PC, and iOS.
- Integrated console features/APIs for cross-play, focusing on user authentication, UI, matchmaking, emporium/store, app stability, and audio.
- Applied agile development to meet certification requirements and project timelines.

#### Goofballs

#### (Gameplay & UI Programmer | Unreal Engine 4 | July – December 2019)

- Developed gameplay systems including randomizing algorithms, local multiplayer systems, UI and physics controllers.
- Collaborated with lead programmer and game designer to create a custom UI framework based on game requirements.
- Shipped game on the Steam platform

# **Individual Projects**

#### Procedural Content Generation Markov Chain based WFC

(Prodigy Engine | Engine & Tools Programmer | June 2019 – May 2020)

- Architected procedural content generation using Wave Function Collapse (WFC) algorithm by Implementing overlapping, tiling and Markov chain based WFC models using C++ and Prodigy Engine.
- Used constraint-based texture synthesis in 2 dimensions to create procedural tile maps, platformer style levels, flowers, circuits, castles, and other image outputs.

#### **Prodigy Engine**

(Personal C++ Engine | DirectX11, Nvidia PhysX | August 2018 - Sept 2020)

- Developed a DirectX11-based game engine featuring 2D physics, 3D physics using PhysX, GUI tools, math utilities, 2D animation systems and more.
- Incorporated tools including, a developer console, debug rendering system and multi-threaded instrumented profiler to aid in debugging.

### Experience

- Gameplay Systems Engineer Final Strike Games, Bellevue, WA (Full-time employment. May 2022 Present)
- Software Engineer Enduring Games, Austin, TX (Full-time employment. July 2020 – Feb 2022)
- Assistant Manager AR/VR What Box Entertainment, Bangalore, India (Full-time employment. March 2018 - June 2018)