

# Pronay Peddiraju

Senior Systems Engineer – Final Strike Games, Bellevue WA

## Contact Info

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## Highlighted Skills

C++ Programming  
Cross-Platform Development  
Multi-threaded Systems  
Performance and Optimization  
Networked Gameplay Systems  
Linear Algebra & Trigonometry  
Physics Programming  
Profiling and Optimization

## Education

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

## Research Publications

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

**Star Wars: Zero Company (Upcoming Release)** *Final Strike Games, Bellevue, WA*  
(Senior Systems Engineer | Unreal Engine 5 | Sept 2023 – Present)

- Working on Star Wars: Zero Company, a AAA tactical shooter ([announcement](#)).
- Responsible for game systems including but not limited to cover, movement, destruction, graphics features, debug features, multi-threaded systems, performance, optimization and more.

**Unannounced AAA Title** *Final Strike Games, Bellevue, WA*  
(Gameplay Systems Engineer | Unreal Engine 5 | May 2022 – Sept 2023)

- Worked on game systems including but not limited to character, camera and controls, player interactions, networking and replication, world streaming, asynchronous systems, performance, 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.
- Ensured certification requirements and feature goals were met for all platforms.

## Individual Projects

**Procedural Content Generation Markov Chain based WFC**  
(Prodigy Engine | Engine & Tools Programmer | June 2019 – May 2020)

- Architected a 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

- **Senior Systems Engineer - Final Strike Games, Bellevue, WA**  
(Full-time. Sept 2024 - Present)
- **Gameplay Systems Engineer – Final Strike Games, Bellevue, WA**  
(Full-time. May 2022 – Sept 2024)
- **Software Engineer – Enduring Games, Austin, TX**  
(Full-time. July 2020 – Feb 2022)