

Swarnaditya Singh

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Summary

Gameplay programmer shipping WebGL, mobile, and PC games under tight deadlines, with systems-level engineering depth spanning Unity, Godot, and Raylib/Jai. Experienced building close to the metal – custom entity systems, asset pipelines, and build tooling – alongside rapid prototyping and design-driven engineering.

Technical Expertise

Languages: Python, C#, GDScript, Jai, Odin, JavaScript

Game Engines & Frameworks: Unity, Godot, Raylib (using Jai)

Gameplay Systems: Input, Physics, State Machines, AI, Progression, Difficulty Tuning, Core Loop Design

Production & Tools: Angular, ASP.NET Core, FFmpeg, Docker, Git, Linux, SQL / SQLite / NoSQL

Professional Experience

Gameplay Systems & Tools Engineer

Oct 2025 – Present

HiVoco Studios

- Automated a Blender content pipeline via its Python API, replacing a fully manual 3D asset workflow with a repeatable, scriptable system
- Generated 145 production-ready 3D models in a single day (vs. a projected multi-week manual turnaround), directly enabling the AI campaign to launch on schedule

Intern

May 2024 – Jul 2024

ProtaTECH Inc.

- Built client-facing web game tooling in Angular 17 + ASP.NET, applying UI/systems thinking (batch actions, lazy-loaded lists) to cut asset review time 42% and P95 load 420ms → 230ms
- Designed an FFmpeg-based transcode/thumbnail pipeline with a parallel job queue (Docker + Linux cgroups) – 4.8× throughput at constant cost and <0.5% error rate, the same performance-engineering approach used for game build pipelines

Independent Gameplay Programmer

2019 – Present

Self-Directed Projects & Game Jams

- Designed and shipped multiple games across Unity, Godot, and Raylib, including game jam entries and indie releases, reaching 1,000+ combined downloads/sales across titles
- Built core gameplay systems – movement, combat, progression, AI state logic, difficulty tuning – under tight jam deadlines
- Published and managed builds/deployment for titles released on Steam and Itch.io
- Built reusable gameplay frameworks, custom editor tooling, and asset pipelines used across multiple projects

Selected Projects

SuperPacker

PC / Steam

- Designed and implemented core idle-clicker mechanics: progression, scaling, feedback loops
- Built gameplay systems in Godot (C#) focused on balance and player retention
- Published on Steam; managed builds and deployment, shipping 200+ copies in the first two weeks post-launch

Big Baby Goes Wild

PC / Itch.io

- Designed core movement and melee mechanics, including the spawn system
- Built narrative-focused gameplay systems in Unity
- Made for WTF x IGDC Game Jam; ranked top 10% of entries with 780+ downloads

Education

Bachelor of Computer Applications

Aug 2022 – Apr 2025

Birla Institute of Technology, Mesra

Relevant Coursework: Data Structures & Algorithms, Computer Graphics, Operating Systems