# Siddharth Sudhakaran

**SOFTWARE ENGINEER · GAME PROGRAMMER**

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## SUMMARY

Game programmer with 9 years of professional game-development experience, including shipping and operating Bingo Bash (70M+ players) at GSN Games / Scopely. Depth in Unity C# gameplay systems, live-ops feature delivery, and designer-facing tooling: combat authoring, narrative and cutscene editors, RTP simulation, and analytics pipelines that let designers work without engineering support. Recently expanded into Unreal 5, MetaHuman, and AI-driven realtime experiences.

## TECHNICAL SKILLS

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| **Engines** | Unity (URP, NavMesh, Timeline, Animator), Unreal Engine 5 (Blueprints, C++ plugins, MetaHuman), Cocos2d-x, Cocos2d-JS |
| **Languages** | C#, C++, JavaScript, Python, ActionScript 3 |
| **Gameplay** | Character controllers, melee/combat systems, hitbox & frame data, state machines, physics & collision, AI behaviours, RPG progression systems, game feel tuning |
| **Live Ops** | Live-ops feature delivery, seasonal events, mini-games, meta systems, remote config, event tracking & analytics, A/B testing support, economy & RTP balancing tools |
| **Backend** | REST API design, client-side integration, SmartFoxServer, real-time multiplayer messaging |
| **Tooling** | Custom Unity editor tools, designer-facing authoring workflows, data-driven content pipelines, simulation harnesses, profiling & mobile performance optimization |
| **AI-Assisted Dev** | Claude Code, Google Antigravity |
| **Pipeline** | Git, Perforce, Bitbucket, GitLab, Jenkins CI/CD, JIRA, Confluence, Agile/Scrum, sprint planning, code review, mentoring |
| **Platforms** | iOS, Android, PC, Web |

## PROFESSIONAL EXPERIENCE

**TechSafeKids** — Vancouver, BC
*Game Programmer* — *Dec 2025 – Present*

- Sole programmer on an EdTech title blending top-down RPG progression with card-battle combat, owning architecture, gameplay systems, and designer tooling end to end while using AI-assisted development to compress delivery timelines.
- Architected the core RPG systems (XP, stats, upgrades, inventory) with editor tools that let designers author new units without engineering support.
- Built a story framework combining a dialogue system with a timeline-based cutscene editor, enabling designers to author narrative content directly in-engine.
- Built a card-battle and ability framework in Unity where new abilities, enemies, and encounter balancing are authored as data rather than code.

**Preempt Technologies** — Remote (New York, NY)
*Software Engineer (Contract)* — *Jul 2025 – Dec 2025*

- Built interactive, AI-driven virtual humans in Unreal Engine 5 using MetaHuman, authoring custom plugins and extending existing plugins and experimental engine features.
- Prototyped a real-time AI simulation game in Unity in which natural-language player commands nudged agentic NPC behaviour, connecting LLM output to in-game decision systems.
- Worked across a distributed remote team on an exploratory R&D roadmap, delivering demonstrable builds on a one-week iteration cycle.

**GSN Games (acquired by Scopely)** — Bengaluru, India
*Software Engineer → Senior Software Engineer* — *Sep 2018 – Jul 2023*

- Shipped 6+ live-ops engagement features for Bingo Bash across mini-games and seasonal events, delivering on schedule with minimal post-release defects and clearing a standing feature backlog.

- Migrated multiple platform-specific Flash/ActionScript codebases into a single unified Unity client for Bingo Bash, a title with 70M+ players across platforms, eliminating parallel maintenance streams and cutting per-feature implementation cost.
- Architected and built UI systems for mini-game modules and the game's landing-screen HUD, including dynamic state transitions, timer effects, and icon toggle systems reused across 10+ subsequent features.
- Partnered with backend and server engineers to design REST APIs and implement client-side SmartFoxServer integrations for new social and real-time features.
- Mentored interns and new hires into a large legacy codebase, providing structured code review and actionable feedback.

**RubySeven Studios** Kochi, India
*Game Programmer* *Jun 2015 – Sep 2018*

- Contributed across the full lifecycle of 4+ shipped social casino titles, from prototype through launch and post-release content updates.
- Designed a standardized, reusable slot engine architecture during an ActionScript-to-JavaScript migration, cutting new slot machine build time from 6 weeks to 2 weeks and becoming the studio's default template.
- Built RTP simulation tooling that let designers validate and balance payout curves independently, removing engineering from the tuning loop.
- Implemented an in-game analytics API that enabled the analytics team to define and instrument custom event tracking without code changes, informing economy and retention decisions.

## SELECTED PROJECTS

**Boss Labs: 3D Top-Down Action Game** 2024
*Lead Software Engineer & Game Designer* *Unreal Engine 5, C++/Blueprints*

- Designed and built a boss-rush action game featuring 15+ boss skills and a layered upgrade system.
- Architected the melee combat system with a fully configurable hitbox setup giving designers frame-level control over collision windows, an authoring workflow that removed engineering from combat iteration.
- Built the player character controller: dash, combo attacks, ranged attacks, healing, and a stamina economy governing action pacing.

**3D Platformer Playground, DuskWave Arts (client)** 2024
*Lead Software Engineer & Technical Designer* *Unity, C#*

- Led technical design and development of a 3D platformer sandbox deriving its mechanics from a client's proprietary comic-book IP, directing a cross-functional team of 5.
- Owned a 3-month agile development plan covering feature research, implementation, and documentation, with weekly client reviews and scope negotiation.
- Tuned a vector-based platformer controller for game feel: coyote time, input buffering, movement smoothing, state-driven logic, and camera follow tuning for consistent responsiveness.
- Acted as technical translator for non-technical team members and the client, establishing communication and handoff pipelines across disciplines.

## EDUCATION

**Master of Digital Media, Centre for Digital Media** Vancouver, BC
*Joint program: Simon Fraser University · UBC · BCIT · Emily Carr* *Sep 2023 – Dec 2024*

**Bachelor of Technology, Computer Science and Engineering** Kerala, India
*Mahatma Gandhi University* *2011 – 2016*