# RAHUL CHANDRA UNITY GAME DEVELOPER

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#### **PROFESSIONAL SUMMARY**

Experienced Unity Programmer with over 3 years working in C++, Unreal Engine, C#, and Unity. Skilled in building gameplay mechanics, custom tools, and writing optimised, cross-platform code. Strong understanding of player movement, AI, physics, animations, and UI integration. Successfully shipped games, improved player engagement, and added multiplayer features to create fun, interactive experiences across different platforms.

Languages: C++, C#, Python, Vex

• Game Engines and Frameworks: Unity Engine, Unreal Engine, SDL2, SFML, Raylib

Technical Skills: 3D Math, AI, Multiplayer, DSA, Design Patterns, Code Optimization, Tools Development, Pipeline Development, Debugging, Github

#### **WORK EXPERIENCE**

**3+ Years** 

# Unreal/Unity Developer | Freelance

Remote(UK) | Nov 2023 - Present

- I worked on several freelance projects as a Unity and Unreal Engine game developer while pursuing my master's degree at Bournemouth University.
- Worked on procedural animation for character movement and interaction systems.

## Sr. Unity Developer | BeGames Ltd. (MVG Studios)

London, UK | Jan 2022 - Sep 2023

- Developed games that reached No.1 on the UK app store and collaborated with the award-winning band 'The Wombats.' Additionally, developed two games for prominent music industry figures.
- Shipped titles including *The Wombats: Official Game*, *Mavin All-Stars*, *TikkyTokkyDropGame*.
- Collaborated with the art team to design and implement a new UI system using the DO-Tween plugin, improving game performance by 15%.
- Implemented Unity Ads, In-App Purchases, and Leaderboards, boosting monetisation and user engagement by 25%, and integrated the Facebook SDK for app metrics.
- Created <u>Custom Unity Editor Tools</u>, automating project folder creation, enhancing Unity project organisation and reducing setup time by 20%.
- Optimised game code and reduced load times by 30%, leading to a decrease in player drop-off rates and an increase in daily active users.

## Unity Augmented Reality Dev. (Unity SDE) | HoloWorld

Mysore, India | June 2021 - Feb 2022

- Developed educational Augmented Reality projects using AR Foundation for science and math experiments in government schools in India.
- Collaborated with educators to ensure curriculum alignment, leading to a 25% increase in student engagement through user testing.

## Jr. Unity Developer | Piper Play Studio

Bengaluru, India | Jan 2021 - June 2021

- Rapidly prototyped new game ideas, including hyper-casual projects like *Type Climber*, resulting in a 30% faster iteration cycle and aligning with emerging trends.
- Utilised Scriptable Objects for efficient data management, and JSON for saving/loading game states, increasing development speed by 15% and reducing memory usage by 10%.

### **RELEVANT PROJECTS**

## [LINK] Unity Casual Games Collection: Unity Engine | C#

2020-Present

- Developed multiple casual games showcasing varied mechanics and solutions.
- Programmed hyper-casual features | Implemented touch controls, simple physics, and intuitive UI.
- Used design patterns for clean code | Ensured maintainable and versatile codebase.
- Applied object pooling techniques | Optimised gameplay and reduced memory usage.
- Usage of Netcode for multiplayer | Deployed a dedicated server with matchmaking

• Includes some games created during different Game Jams both alone or within a team. Some of the playable games: <u>itch.io</u>.

### [LINK] Unity Commercial Game Mechanics Collection: Unity | C#

2020-Present

- Anton-2D Platformer | Developed 2D platformer mechanics with jumping, wall sliding, and dashing.
- **Archery Mechanics** | Built a physics-based archery system with realistic aiming, arrow trajectories, and hit detection.
- Flight Simulator Mechanics | Created flight simulation controls.
- Alien Shooter Top-Down | Built a top-down shooter with twin-stick controls, enemy AI, and shooting mechanics, inspired by classic arcade shooters.
- **Kitchen Simulator** | Developed cooking mechanics focused on resource management and time-based tasks, inspired by *Overcooked*.
- Parkour-Traversal | Created parkour mechanics with vaulting, climbing, and wall running.
- **Tower Defense with Inventory System |** Designed a tower defence game with an inventory system for tower upgrades and resource management.
- FPS Multiplayer | Created a multiplayer FPS system with real-time combat, respawning, and score tracking for competitive play.
- **Procedural Dungeon Generation |** Implemented procedural dungeon generation for random layouts, enemies, and loot to enhance replayability.
- **DOTS and Game Mechanics** | Explored Unity DOTS to optimise performance in large-scale simulations and complex systems.

## [LINK] Editor Tools for Project Management: Unity Engine | C#

• During my time at BeGames, I created custom tools that streamlined the workflow for me and other programmers by automatically generating essential project folders and saving time.

## **EDUCATION**

Masters of Science (MSc) | Computer Animation & Visual Effects Bournemouth University

Bournemouth, England | Sept 2023 - Aug 2024

**Modules**: Animation Software Engineering, CGI Techniques, CGI Tools, Pipeline and TD, Rendering, Simulation **Grade**: Distinction

Bachelor of Technology | Computer Science Engineering in Graphics and Gaming University of Petroleum and Energy Studies

Dehradun, India | 2017 - 2021

**Modules:** Data Structures and Algorithms, Python, OOPs, Introduction to Graphics and Animation, Game Programming, Computer Graphics, Augmented and Virtual Reality Development

Grade: 3.5 GPA or 2:1

### **CERTIFICATION**

### AI Algorithms for Gaming | LinkedIn

Sep 2020

Certification in AI algorithms for game development, focusing on pathfinding, decision trees, and behavior trees for NPCs.