Rumman Bin Ali
GAMEPROGRAMMER

CONTACT INFORMATION

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https://rumman-portfolio-25.vercel.app/

EDUCATION

BSComputerScience
University of Central Punjab (UCP), Lahore, Pakistan

8th Semester | CGPA: 3.13
Expected Graduation: December 2025

ICS (Pre-Engineering)
Punjab College (Muslim Town Campus 4)
September 2019 – May 2021

SKILLS

Core Strengths
- Strong Verbal and Written Communication
- Adaptability and Quick Learning
- Creative Problem Solving
- Team Collaboration

Technical Strengths
- Gameplay and AI Programming
- UI Scripting and UI Design
- Level and Game Design
- Scriptable Objects
- Game Art and Visuals
- RayCast

GameDevelopment Tools
- Unity3d & Unity2d
- Visual Studio Code/Community
- GitHub
- VS code
- Blender

Programming Languages
- C# (Proficient – Unity Development)
- Python (Proficient)
- C (Basic)
- C++(Basic)

OBJECTIVE

Motivated Junior Game Developer with one year of hands-on experience in Unity (2D & 3D) and C#. Skilled in gameplay programming, interactive UI design, and preparing game-ready assets. Seeking an opportunity to contribute to a creative game development team, grow my technical skills, and help build engaging player experiences.

EXPERIENCE

Unity Development Assistant Experience (6 months)

- Provided technical support during lab sessions, guiding students on scripting, physics, and asset integration.
- Reviewed and debugged student game projects, suggesting performance improvements.
- Created mini-prototypes to demonstrate key Unity concepts such as animations, collisions, and UI systems

Junior Game Developer (1 Year)
Game Development | Unity (C#), 2D & 3D Projects

- Developed and implemented core gameplay systems in Unity using C#, including movement, UI interactions, game mechanics, and logic flow.
- Worked on both 2D and 3D game projects, handling coding, scene setup, level logic, and overall game design.
- Designed and built interactive UI/UX elements such as menus, HUDs, pop-ups, transitions, and responsive layouts.
- Optimized and prepared 3D assets in Blender, including fixing pivots, scaling, mesh separation, and ensuring models were game-ready.
- Collaborated closely with designers and artists to translate concepts into functional gameplay.
- Integrated animations, particle effects, and UI animations for polished player experience.
- Performed bug fixing, optimization, and performance improvements across mobile and desktop platforms.
- Followed version control workflows (GitHubDesktop) and maintained clean, modular code structures.

PORTFOLIO

RoadTrip (Unity 3D)

- Designed and developed a Subway Surfers–style endless runner with smooth lane-switching and bike tilt mechanics.
- Implemented multi-lane switching (5–7 lanes) using Unity's New Input System with ease-in/ease-out glide movement.
- Created dynamic environments with changing terrains, traffic obstacles, and collectibles to enhance replayability.
- Built third-person camera system that smoothly follows the player without inheriting tilt or rotation.
- Optimized performance by managing object pooling, terrain streaming, and animation syncing for smooth gameplay.

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QA Basketball Game (Unity 3D)

- Developed an educational quiz-based basketball game combining trivia questions with basketball scoring mechanics.
- Implemented dynamic question generation with multiple-choice answers and visual feedback for correct/incorrect responses.
- Integrated player animations, UI transitions, and real-time scoring system for interactive gameplay.
- Created pause, resume, and main menu systems to manage game flow.
- Ensured input validation and restricted invalid entries for clean user experience.

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Haunted House Split-Screen Quiz Adventure (Unity 3D, C#)

- Developed a 3D horror-themed split-screen game in Unity where two players progress through a haunted house by answering quiz questions at checkpoints.
- Implemented a custom quiz engine with dynamic question loading from StreamingAssets, keyboard navigation, UI highlighting, scoring, and audio feedback.
- Created a branching checkpoint system using safe/unsafe paths:
- Correct answers move the player along the safe route
- Wrong answers trigger a ghost encounter, unsafe path traversal, and automatic respawn to the last safe checkpoint
- Built an Auto-Walk AI movement system with smooth rotation, collision-based checkpoint activation, and integrated Animator states (run, idle, victory).
- Added ghost spawn logic with scream audio, positioning AI, and cinematic chase/respawn sequences.
- Implemented a Game Timer manager to track level completion and determine the first escaping player.
- Designed a third-person smooth camera follow system using rotated offsets and interpolation for polished visuals.
- Integrated immersive environment effects including lighting, footsteps, ambient sound, and haunting atmosphere.
- Refactored scripts into modular components: QuizController, AutoWalkCheckpointManager, Checkpoint, CameraFollow, and Timer for maintainable gameplay architecture.
- Applied debugging, coroutine sequencing, state management, and clean C# coding practices to create a stable and scalable system.

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WolfFear Endless Runner (Unity 3D, C#)

- Designed and developed a 3D endless runner game in Unity featuring a dark, haunted environment and a wolf character with smooth lane-switching and jump mechanics.
- Implemented dynamic environment looping using an EnvironmentLooper system with segment pooling, optimized memory usage, and seamless biome transitions.
- Built a modular lane-based movement system enabling fluid left/right lane changes, jump transitions, and animation-driven movement with smooth interpolation.
- Created a swipe-based mobile input control system using the Unity Input System, supporting tap-to-jump, swipe left/right, and keyboard fallback for testing.
- Added progressive difficulty scaling with a RoadManager that dynamically increases world speed over time for engaging gameplay pacing.
- Integrated collectible systems for coins and diamonds, including spawner logic, pickup movement, destruction behavior, and UI score updates via TextMeshPro.
- Developed a custom camera follow system that maintains a fixed cinematic offset behind the wolf for a clean, Subway Surfers–style view.
- Implemented fog and lighting effects (breathing fog shader controller, dynamic intensity changes) to enhance the dark and haunted visual atmosphere.
- Optimized gameplay performance by using object pooling, efficient physics triggers, and minimal per-frame memory allocations.

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Boulder to the Mountain (Unity 3D, C#)

- Developed a physics-driven 3D boulder-pushing game using Unity, featuring realistic rigidbody movement, slope detection, and torque-based rolling mechanics.
- Implemented a custom Character Controller system with movement, slope alignment, pushing mechanics, and state-based animation handling.
- Built a dynamic boulder controller supporting push forces, slope-aligned movement, rotation steering, speed clamping, and surface-normal projection for accurate physics behavior.
- Created a visual rolling system for the boulder that calculates rotation speed from Rigidbody velocity, enabling smooth and realistic rolling animation.
- Added a third-person free-look camera with mouse-based rotation, offset following, and smooth position damping.
- Implemented player–boulder interaction logic, including detection triggers, closest-point calculations, and contextual pushing animations.
- Optimized character movement on uneven terrain using raycast-based slope alignment and projected movement vectors.
- Designed custom gameplay mechanics for side-approach pushing, uphill resistance, slope-compensated force application, and rotation input for steering the boulder.
- Wrote clean, modular, and well-structured C# gameplay scripts across multiple components (PlayerMovement, BoulderController, CameraFollow, BoulderVisualRoll).
- Collaborated mechanics such as idle animations, smooth damped rotation, push distance checks, and state flags to ensure polished and responsive gameplay.

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RPG game (Unity 3D, C#)

- Developed a 3D RPG game in Unity using C# with modular, scalable architecture and well-organized gameplay systems.
- Implemented a robust event-driven player controller integrating NavMesh, input routing, animation logic, and state control.
- Implemented NavMesh-based pathfinding for click-to-move RPG navigation with dynamic destination updates and obstacle handling.
- Built an intelligent follow-and-attack AI that automatically chases enemies, stops at attack range, and rotates toward targets using smoothed quaternion interpolation.
- Created a coroutine-based attack loop with randomized attack animation selection, cooldown logic, and seamless stop/resume behavior.
- Integrated and customized the AnimatorCoder system to support advanced animation state machines and layer-based transitions.
- Implemented animation handling with crossfades, next-animation chaining, layer locking, and dynamic motion selection.
- Added logic to automatically switch between walk, idle, and attack animations based on player movement and combat conditions.
- Built a mouse-based input system using raycasting to detect ground and enemies for navigation and combat decisions.
- Implemented an input-routing layer to globally enable or disable player interactions through a static controller.
- Developed a smooth third-person RPG camera system using offset-based follow logic and frame-based interpolation.
- Ensured camera stability by decoupling camera rotation from character orientation, maintaining consistent cinematic angles.

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