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3D Game Development

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Abstract: *This project explores the development of a 3D game that integrates immersive environments, interactive gameplay, and real-time rendering, aimed at delivering a unique and engaging experience. The game currently focuses on the journey of a delivery boy who, disillusioned with his job, navigates a dynamic city environment while completing deliveries. Players interact with the environment and take on delivery tasks, with a system that allows NPCs to wander the city. The AI for these NPCs is currently simple, where they randomly choose destinations and travel to them, adding some unpredictability to the environment. Although the game currently centers on the delivery system, future updates aim to introduce chaotic elements, including humorous pranks and unpredictable interactions, contributing to a more dynamic gameplay experience. The city is designed with detailed streets, buildings, and objects, with dynamic lighting, shadow effects, and NPC interactions that enrich the environment. The exaggerated art style emphasizes the game's comedic tone, which will be further enhanced as additional features are implemented. This paper details the design process, technical challenges, and ongoing work to optimize performance across different platforms, demonstrating proficiency in game design, 3D modeling, and real-time mechanics.*

Keywords: 3D game development, Dynamic city environment, Game design, Interactive gameplay, NPC AI, Performance optimization