Realistic 3D Gaming

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In order to meet the demands for a realistic 3D gaming experience, extensive computation resources are required, either in software, hardware, or both. Rendering high quality graphics in real time monopolizes available resources to the point where there is very little left for the actual game. The advantage of handling rendering in hardware is that designing the hardware to handle this task from the ground up allows for more efficiency at the cost of flexibility (think dedicated GPUs vs. CPUs). Our goal is to create a 3D rendering system that will produce realistic-looking graphics, and apply them to implement a 3D game.