Abstract

Graphics Processing Units (GPUs) broke out by the end of 1990s, devoted to the goal of providing ubiquitous interactive 3D graphics which, a few years back then, was a far-fetched dream. By the end of decade, the technology grew exponentially, with nearly every computer containing a GPU, providing a high performance, visually rich, brilliant 3D computer graphics. This unprecedented growth was a cumulative outcome of rising demand for high-quality games,
manufacturing processes advancements, and employment of inherent parallelism for computation. Today, the raw computational power of a GPU dwarfs that of the most powerful CPU, and the gap is continuously widening. World's most powerful supercomputers (e.g., Tianhe-2(China) and Titan(USA)) use GPUs at their core [1]. This paper provides a review of GPU technology, overview of general purpose application of GPUs, architectural highlights, Enhancement of GPGPUs. In the end, we take a look at future research directions and challenges to parallel computing chips.

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Index Terms

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