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A STUDY OF ENHANCING GPU PERFORMANCE THROUGH PYTHON-DRIVEN OPEN CL COMPOSITION

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ABSTRACT

Graphics Processing Units (GPUs) have emerged as indispensable components for accelerating various computational tasks, ranging from scientific simulations to deep learning. OpenCL, a versatile framework for heterogeneous computing, enables developers to harness the full potential of GPUs and other accelerators. This research study explores the novel approach of enhancing GPU performance through Python-driven OpenCL composition. By leveraging Python's simplicity and flexibility, developers can construct complex GPU programs with ease, optimizing the utilization of GPU resources and improving overall system performance.