TensorFlow Lite Now Supports Tapping OpenCL For Much Faster GPU Inference

TensorFlow Lite for AI inference on mobile devices now has support for making use of OpenCL on Android devices. In doing so, the TFLite performance presents around a 2x speed-up over the existing OpenGL back-end.

To little surprise, the TensorFlow developers are finding their new OpenCL back-end for TFLite to be much faster than their OpenGL back-end for mobile inference. Thanks to better performance profiling abilities, native FP16 support, constant memory, and OpenCL being better designed for compute than OpenGL ES with compute shaders, the TFLite performance is much improved -- and especially so compared to doing inference on the mobile SoC CPU cores.

GRVK Allows AMD's Deprecated Mantle API To Run Atop Vulkan

There are just a handful of games like Battlefield 4, Thief, and others that can make use of AMD's long-deprecated Mantle graphics API as the predecessor to modern graphics APIs like Vulkan and Direct3D 12. Mantle never was brought to Linux given the emphasis quickly
turned to Vulkan within The Khronos Group, but now with the open-source "GRVK" project it's being mapped on top of Vulkan.

Independent open-source developer Clément Guérin took to implementing Mantle on top of the Vulkan API largely as a learning exercise. But it does have the potential of helping the few games/engines supporting Mantle to potentially run faster under Wine / Steam Play than the likes of the D3D11 code paths, but that's yet to be determined given the initial release of GRVK does little more than correctly render a triangle.

Mike Blumenkrantz: Xfb Redux [6]

In the course of handling ARB_enhanced_layouts, I came across another interesting xfb-related issue: shaders are now allowed to specify all the xfb buffer info in the layout, and they're also now allowed to set the location of the variable. And locations aren't considered to overlap unless they have overlapping components.

For those who recall so many years ago when I explored xfb integration in ntv, you know that this is a problem because I've been tracking xfb outputs based solely on the location.

Security updates for Wednesday [7]

Security updates have been issued by Debian (imagemagick and ruby-websocket-extensions), Fedora (libetpan, LibRaw, and php), Gentoo (nss), Mageia (apache, ark, clamav, claws-mail, dovecot, firefox, firejail, freerdp, golang, jasper, kernel, libssh, libx11, postgresql-jdbc, python-rstlib, radare2, roundcubemail, squid, targetcli, thunderbird, tomcat, and x11-server), Red Hat (rh-mysql80-mysql), SUSE (dovecot22, freerdp, libvirt, and postgresql12), and Ubuntu (curl and linux-hwe, linux-azure-5.3, linux-gke-5.3).

Sophos EDR achieves Amazon Linux 2 Ready designation [8]

Sophos is pleased to announce that it has achieved the Amazon Linux 2 Ready designation as part of the Amazon Web Services (AWS) Service Ready Program.

What They Don't Tell You About Being a Bounty Hunter or Security Content Creator [9]

No matter what, make sure that you're having fun. Never forget that your enjoyment of the activity is the true source of both your skill and your happiness.
Much love to you all, and thank you for doing what you do.

Source URL: http://www.tuxmachines.org/node/141149

Links:
[7] https://lwn.net/Articles/829102/rss