Image Processing in Video Stream using CUDA Video Decoder

Summer internship

Are you looking for a summer internship where you can acquire valuable experience by being a part of the journey to create a world unique “Globe in 3D” based on satellite imagery? Would you like to learn and develop your skills while working with cutting edge technology together with highly competent colleagues in a global context? This might be the position for you!

Maxar is currently seeking summer interns to join our R&D center in Linköping, Sweden.

Our company
Maxar is a leading Space Technology and intelligence company. We unlock the promise of space to help governments and businesses solve problems on Earth and beyond.

Our solutions
Visualize, analyze, plan and decide—with dynamic 3D data. We build the Globe in 3D using the highest-quality imagery and our revolutionary 3D production process. Our products are sensor agnostic, require no ground control points, provide 50 cm resolution and maintain an absolute accuracy of 3 m.

The Internship
Image processing is at the very core of MAXAR Linkoping. We’re always on the lookout to improve and optimize our image processing toolbox for the tasks at hand. One of these tasks is video processing in a real-time environment, where execution time and latency of the functions are crucial to the performance. Many modern video processing algorithms rely heavily on GPGPU application to handle real time requirements.

For the summer internship the intern will investigate different image processing tasks and assess their performance in a GPGPU pipeline. The performance should be evaluated towards CPU based implementations. OpenCV provides a good start as an image processing library that contains both CPU and GPU implementations for different image processing functions.

Preferred qualifications
Master of Science student with student with interest in parallel and asynchronous programming. Experiences with CUDA, NVCUVID, OpenCV and image processing background

For more information about the internship contact
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