



软件学院 杨伟光

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# Research Fields of GPGPU



**Research Fields of GPU**

**How to accelerate your algorithm with  
CUDA**

- GPU applications
- GPU programming environments
- GPU runtime systems
- GPU compilation
- GPU architectures
- Multi-GPU systems
- GPU power/efficiency
- GPU reliability
- GPU benchmarking/measurements
- Heterogeneous GPU platforms that incorporate GPUs

- 功耗研究
- I/O研究
- 并行线程调度研究
- 缓存请求调度研究
- 负载均衡研究
- 模拟器研究
- Benchmark研究
- 编译器优化研究

- Power constraint
- I/O bottleneck
- burst buffer in exascale computing

- 卷积神经网络
- Caffe
- THEANO
- CUDNN
- CENET
- IMAGENET

- Accelerate algorithms with CUDA (Image Processing)

An Improved GPGPU-Accelerated Parallelization For Rotation Invariant Thinning Algorithm, Weiguang Yang, ICIP2016

**Thanks**