#ifndef BATCHNORM\_LAYER\_H

#define BATCHNORM\_LAYER\_H

#include "image.h"

#include "layer.h"

#include "network.h"

#ifdef \_\_cplusplus

extern "C" {

#endif

layer make\_batchnorm\_layer(int batch, int w, int h, int c, int train);

void forward\_batchnorm\_layer(layer l, network\_state state);

void backward\_batchnorm\_layer(layer l, network\_state state);

void update\_batchnorm\_layer(layer l, int batch, float learning\_rate, float momentum, float decay);

void resize\_batchnorm\_layer(layer \*l, int w, int h);

#ifdef GPU

void forward\_batchnorm\_layer\_gpu(layer l, network\_state state);

void backward\_batchnorm\_layer\_gpu(layer l, network\_state state);

void update\_batchnorm\_layer\_gpu(layer l, int batch, float learning\_rate\_init, float momentum, float decay, float loss\_scale);

void pull\_batchnorm\_layer(layer l);

void push\_batchnorm\_layer(layer l);

#endif

#ifdef \_\_cplusplus

}

#endif

#endif