Installation notes for Ubuntu 13.04

Installing CUDA

```
sudo apt-get install nvidia-cuda-toolkit
```

Installing Git

```
apt-get install git
```

Installing CMake

```
sudo apt-get install cmake
```

Build with

```
...\tsi-gpu> mkdir build $$ cd build
...\tsi-gpu/build> cmake ../
...\tsi-gpu/build> make
```

All executables will be in `/build/bin` and all libraries will be in `/build/lib/`.

Installation notes on an Amazon instance

1. Create an amazon instance by following amazon's instructions (http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/get-set-up-for-amazon-ec2.html). Select ubuntu-precise-12.04-amd64-server, and selelct the GPU intance type g2.2xlarge.

2. After the instance is setup, SSH into it.

3. Setup dependencies needed to install CUDA (gcc):

```
sudo apt-get update
sudo apt-get install gcc
```

4. Download and install CUDA. For our choice in os, grap the following .deb file.:

```
wget http://developer.download.nvidia.com/compute/cuda/repos/ubuntu1204/x86_64/cuda-rep
```

5. Then run:

```
sudo dpkg -i cuda-repo-ubuntu1204_5.5-0_amd64.deb
sudo apt-get update
sudo apt-get install cuda
```

6. Setup environment; Run the following lines. Add them to ~/.bashrc to make it permanent.

```
export PATH=/usr/local/cuda-5.5/bin:$PATH
export LD_LIBRARY_PATH=/usr/local/cuda-5.5/lib64:$LD_LIBRARY_PATH
```

7. Install CUDA samples (optional) to some directory:

```
cuda-install-samples-5.5.sh .
```

8. Verify an example works:

```
cd  <NVIDIA_CUDA-5.5_Samples>/1_Utilities/deviceQuery
make
./deviceQuery
```

9. Now that CUDA is installed, lets start building the project. First, clone the project from Github.

```
sudo apt-get install git
git clone https://github.com/hgranlund/tsi-gpgpu.git
```

10. Install cmake and build the project.

```
cd tsi-gpgpu
sudo apt-get install cmake
mkdir build && cd build
cmake ..
make
```

11. Now the project is created, test the solution by:

```
make test
```