

Team Red Build

Build list:

- 32 gb (2 16 gb dimms) of 3000 MHz GSkill Trident Z
- Ryzen 7 1700
- Vega 56 (ASRock blower)
- Wraith Spire
- B450 Aorus M
- 128gb ssd
- 2 tb hard drive
- 750 watt power supply
- Rosewill scm-01 case

Tensorflow benchmarks:

InceptionV3

- 67.08 Images per second for batch size of 64.
- Not enough ram at batch size of 80

VGG16

- 80.57 Images per second for batch size of 64

VGG16 (fp 16)

- 52.66 Images per second for batch size of 64

Resnet 50

- 125.27 Images per second for batch size of 64
- 116.76 Images per second for batch size of 80
- OOM for batch size of 128

Resnet 50 (fp 16)

- 138.12 Images per second for batch size of 64

Resnet 50 (fp 16

```
export TF_ROCM_FUSION_ENABLE=
```

)

- 145.19 Images per second for batch size of 64
- 153.18 Images per second for batch size of 128

Stuff I tried out to get it running outside of docker

```
sudo apt install rocm-libs miopen-hip cxlactivitylogger
sudo apt update
sudo apt install rocm-libs miopen-hip cxlactivitylogger
sudo apt install rocm-devwget -q0 - http://repo.radeon.com/rocm/apt/debian/rocm.gpg.key |
sudo apt-key add -echo 'deb [arch=amd64] http://repo.radeon.com/rocm/apt/debian/ xenial main'
```

```
| sudo tee /etc/apt/sources.list.d/rocm.list
sudo apt update
sudo apt install rocm-devecho 'SUBSYSTEM=="kfd", KERNEL=="kfd", TAG+="uaccess",
GROUP="video"' | sudo tee /etc/udev/rules.d/70-kfd.rules
groups
sudo usermod -a -G wheel kenneth
sudo usermod -a -G admin kenneth
sudo apt install rocm-utils
sudo apt install rocm-libs
/opt/rocm/bin/rocminfo
sudo /opt/rocm/bin/rocminfo
sudo /opt/rocm/opencl/bin/x86_64/clinfoecho 'export
PATH=$PATH:/opt/rocm/bin:/opt/rocm/profiler/bin:/opt/rocm/opencl/bin/x86_64' | sudo tee -a
/etc/profile.d/rocm.sh
export ROCM_PATH=/opt/rocm
export DEBIAN_FRONTEND noninteractivesudo apt update && sudo apt install -y wget software-
properties-commonsudo apt-get update && sudo apt-get install -y      python3-numpy      python3-
dev      python3-wheel      python3-mock      python3-future      python3-pip      python3-
yaml      python3-setuptools &&      sudo apt-get clean &&      sudo rm -rf /var/lib/apt/lists/*
pip install --user tensorflow-rocm --upgrade
pip3 install --user tensorflow-rocm --upgrade
```

Running vgg19 was not possible. Maybe due to tf 1.13.1

Revision #3

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