

# 2019

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# July 2019

## July 19 2019

Mwanafunzi is listing nvidia-docker, docker-ce, and nvidia-docker-runtime as upgradable packages. Currently, since I am away from home and using this machine extensively, I will not be upgrading these packages. Do not upgrade them until a better solution using btrfs snapshots can be put in place (with redundant boot drives).

## July 20 2019

Rebuilt sharelatex from docker-compose files so that it uses the correct hostname. This only became an issue when doing external signups.

I tried to set up smtp with sharelatex so that password resets could be automated but I did not have much luck in getting it set up.

## July 21 2019

Running parsing genie on google cloud with port 80 requires running as root since listening on that port is reserved for root by default.

## July 23 2019

Git annex sync --content on newly cloned repositories is not working at the moment. It is first saying that

# Zen 2 build

<https://pcpartpicker.com/list/9XXD6s>

# Threadripper build

<https://pcpartpicker.com/list/Lr7tcY>

# August 2 2019

gave Nick Howell my id\_rsa public key which was signed by Fran. The key is in /home/kenneth/.ssh/id\_rsa\_nhowel.pub on kiti.

# August 2019

New gtx 1070 blower in Mwanfunzi. With both GPUs under 99% load the power consumption is 415 watts.

At idle we're at 78 watts.

# September 2019

Plans for redoing the environment:

- Need to set up LDAP authorization source
- Need to migrate existing users into LDAP

## Goals

- Large networked storage
- BTRFS on mwanafunzi root
  - Allow for easy snapshotting
- Fix boot when backup drive is connected

## Purchases

- 8tb WD Elements

# October 2019

Lizardfs running smoothly with 2 tb of raw storage.

## todo

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- Add both 4TB drives that I have into nodes of the cluster.
- Buy small ssd
- Set up proxmox on both optiplexes
- Consider buying a new desktop so that the current optiplex can be repurposed
- power off dl380

250 parallel crf tagging runs took 2168.2 minutes on 12 cores. returned the error message:

```
Traceback (most recent call last):
  File "crf_tag.py", line 54, in <module>
    main()
  File "crf_tag.py", line 51, in main    print(metrics.flat_classification_report(test_tags,
pred_tags, digits=8)) File "/home/kenneth/.local/lib/python3.6/site-
packages/sklearn_crfsuite/metrics.py", line 13, in wrapper    return func(y_true_flat,
y_pred_flat, *args, **kwargs) File "/home/kenneth/.local/lib/python3.6/site-
packages/sklearn_crfsuite/metrics.py", line 68, in flat_classification_report    return
metrics.classification_report(y_true, y_pred, labels, **kwargs) File
"/home/kenneth/.local/lib/python3.6/site-packages/sklearn/metrics/classification.py", line
1568, in classification_report
    name_width = max(len(cn) for cn in target_names)
ValueError: max() arg is an empty sequence
```

# NOvember 2019

roku ip 192.168.2.5 user rokudev

# December

## Parser crash post mortem

### Lexicon

```
ring{String}["N.sg"],"women" => SubString{String}["N.pl"],"guitar" =>
SubString{String}["N.sg"],"seen" => SubString{String}["V.trans.ed"],"short" =>
SubString{String}["Adj"],"thinks" => SubString{String}["V.trans", "V.clausal"],"big" =>
SubString{String}["Adj"],"a" => SubString{String}["Det"],"thinking" =>
SubString{String}["V.trans.ing", "V.clausal.ing"],"looked" =>
SubString{String}["V.trans.ed"],"plumbers" => SubString{String}["N.pl"],"yellow" =>
SubString{String}["Adj"],"this" => SubString{String}["Det"],"throws" =>
SubString{String}["V.trans", "V.ditrans"],"eat" => SubString{String}["V.trans.bare",
"V.intrans.bare"],"massive" => SubString{String}["Adj"],"look" =>
SubString{String}["V.intrans.bare", "V.stative.bare"],"under" =>
SubString{String}["P"],"called" => SubString{String}["V.attrib.ed"],"sleep" =>
SubString{String}["V.intrans.bare"],"the" => SubString{String}["Det"],"laughing" =>
SubString{String}["V.intrans.ing"],"talks" => SubString{String}["V.intrans"],"stone" =>
SubString{String}["N.sg"],"calls" => SubString{String}["V.attrib"],"house" =>
SubString{String}["N.sg"],"sleeps" => SubString{String}["V.intrans"],"talk" =>
SubString{String}["V.intrans.bare"])Dec 09 18:17:11 parser server[4846]:
Dict{Any,Any}("compliments" => SubString{String}["V.trans"],"pulls" =>
SubString{String}["V.trans"],"pull" => SubString{String}["V.trans.bare"],"grab" =>
SubString{String}["V.trans.bare"],"plumber" => SubString{String}["N.sg"],"many" =>
SubString{String}["Det"],"that" => SubString{String}["Det"],"buy" =>
SubString{String}["V.trans.bare"],"three" => SubString{String}["Adj"],"cats" =>
SubString{String}["N.pl"],"runs" => SubString{String}["V.trans", "V.intrans"],"seems" =>
SubString{String}["V.stative"],"to" => SubString{String}["INF"],"sees" =>
SubString{String}["V.trans", "V.intrans"],"laugh" =>
SubString{String}["V.intrans.bare"],"dogs" => SubString{String}["N.pl"],"call" =>
```

```

SubString{String}["V.attrib.bare"],"is" => SubString{String}["V.stative",
"Aux.prog"],"pushes" => SubString{String}["V.trans"],"looking" =>
SubString{String}["V.trans.ing"],"calling" => SubString{String}["V.attrib.ing"],"throw" =>
SubString{String}["V.ditrans.bare"],"looks" => SubString{String}["V.intrans",
"V.stative"],"hill" => SubString{String}["N.sg"],"in" => SubString{String}["P"],"wants" =>
SubString{String}["V.inf"],"has" => SubString{String}["Aux.perf"],"push" =>
SubString{String}["V.trans.bare"],"buys" => SubString{String}["V.trans"],"dog" =>
SubString{String}["N.sg"],"catches" => SubString{String}["V.trans"],"cat" =>
SubString{String}["N.sg"],"foot" => SubString{String}["N.sg"],"on" =>
SubString{String}["P"],"run" => SubString{String}["V.trans.bare", "V.intrans.bare"],"see" =>
SubString{String}["V.trans.bare", "V.intrans.bare"],"eats" => SubString{String}["V.trans",
"V.intrans"],"thought" => SubString{String}["V.clausal.ed"],"pasted" =>
SubString{String}["V.trans.ed"],"bought" => SubString{String}["V.trans.ed"],"seeing" =>
SubString{String}["V.trans.ing"],"think" => SubString{String}["V.clausal.bare"],"been" =>
SubString{String}["Perf.prog"],"laughs" => SubString{String}["V.intrans"],"grabs" =>
SubString{String}["V.trans"],"compliment" => SubString{String}["V.trans.bare"],"catch" =>
SubString{String}["V.trans.bare"],"woman" => SubSt

```

## sentences

Any[["the", "cat", "has", "been", "looking", "in", "the", "house"]]

## Productions

```

Dict{Any,Any}{"S" => Array{String,1}[["NP", "VP"],"NP" => Array{String,1}[["Det", "N.sg"],
["Det", "N.pl"], ["Det", "N.sg", "PP"], ["Det", "N.pl", "PP"], ["Det", "Adj", "N.sg"],
["Det", "Adj", "N.pl"], ["N.pl"], ["Det", "N.sg"], ["Det", "Adj", "N.sg"], ["Det", "N.sg",
"PP"], ["Det", "Adj", "N.sg", "PP"], ["N.pl"], ["Det", "N.pl"], ["Adj", "N.pl"], ["Det",
"Adj", "N.pl"], ["N.pl", "PP"], ["Det", "N.pl", "PP"], ["Adj", "N.pl", "PP"], ["Det", "Adj",
"N.pl", "PP"]],"PP" => Array{String,1}[["P", "NP"]],"VP" => Array{String,1}[["V.trans", "S"],
["V.trans", "NP", "NP"], ["V.intrans"], ["V.trans", "NP"], ["V.stative", "Adj"], ["V.attrib",
"NP", "Adj"], ["V.inf", "INF", "V.intrans.bare", "NP"], ["V.inf", "INF", "V.intrans.bare",
"PP"], ["V.inf", "INF", "VP"], ["V.clausal.bare", "NP", "V.trans", "NP"], ["V.attrib.bare",
"NP", "Adj"], ["Aux.prog", "V.trans.ing", "PP"], ["Aux.prog", "V.trans.ing", "NP"],
["Aux.prog", "VP"], ["V.attrib.ing", "NP", "Adj"], ["Aux.prog", "V.attrib.ing", "NP"],

```

```
["Aux.prog", "V.clausal.ing", "NP", "V.trans", "NP"], ["Aux.perf", "V.trans.ed", "PP"],
["Aux.perf", "V.trans.ed", "NP"], ["Aux.perf", "VP"], ["V.attrib.ed", "NP", "Adj"],
["Aux.perf", "V.clausal.ed", "S"], ["Aux.perf", "Perf.prog", "V.trans.ing"], ["VP", "PP"],
["Aux.perf", "Perf.prog", "V.trans.ing", "NP"], ["VP", "NP"], ["Aux.perf", "Perf.prog",
"V.intrans.ing"], ["VP"]])
```

## Relevant piece of stacktrace

```
|97 |V.trans.ing-> looking*          <== Int64[]|98 |VP ->Aux.perf Perf.prog
V.trans.ing*          <== [57, 93, 97]|99 |VP ->Aux.perf Perf.prog V.trans.ing*NP
<== [57, 93, 97]
|100 |S ->      NP VP*          <== [25, 98]
|101 |VP ->      VP*PP          <== [98]
|102 |VP ->      VP*NP          <== [98]
|103 |VP ->      VP*            <== [98]
|104 |NP ->      *Det N.sg   <== Int64[]|105 |NP ->      *Det N.pl   <== Int64[]
|106 |NP ->      *Det N.sg PP <== Int64[]|107 |NP ->      *Det N.pl PP <== Int64[]
|108 |NP ->      *Det Adj N.sg <== Int64[]|109 |NP ->      *Det Adj N.pl <== Int64[]
|110 |NP ->      *N.pl       <== Int64[]|111 |NP ->      *Det Adj N.sg PP <==
Int64[]
|112 |NP ->      *Adj N.pl   <== Int64[]|113 |NP ->      *N.pl PP   <== Int64[]
|114 |NP ->      *Adj N.pl PP <== Int64[]|115 |NP ->      *Det Adj N.pl PP <==
Int64[]
|116 |γ ->      S*           <== [100]
|117 |PP ->      *P NP       <== Int64[]|118 |S ->      NP VP*          <== [25, 103]
|119 |VP ->      VP*PP          <== [103]
|120 |VP ->      VP*NP          <== [103]
|121 |VP ->      VP*           <== [103]|122 |γ ->      S*           <== [118]
-----
, -----|123 |P ->      in*          <== Int64[]
-----
```

# 04 April

## Quanta Windmill node 2

Currently, I am running node 2 of my quanta windmill on a different motherboard with the working bios chip. I'm only using two ram sticks (4gb total) and one of the e5-2609 processors. So far everything seems fine. The working motherboard is #3.

The original non-working motherboard is #4.

The numbers are written on the serial tags on the motherboards.

## Update for e5-2650's

Unfortunately, the motherboard that was working has a bent pin on the second processor socket. I have switched to the e5-2650 instead of the e5-2609 that was in there and everything seems to be working fine. However, I do not think that adding in another cpu will work given that the pin is bent.

Some of my ram is also not working. I am running fine right now on four of the 2gb sticks but with all 8 put in, the system does not want to boot.

## z620

I am working on building a deep learning machine for doing research. I ended up purchasing a z620 for \$200 with an e5-2620 installed, 16 gigabytes of ecc ddr3 and a 512 gigabyte hard drive. There are two 16x pcie v3 slots in the motherboard for this computer and two six pin power connectors.

However, most modern gpus require an 8 pin power connector.

6 pin connectors are rated for 75 watts, 8 pin power connectors are rated for 150 watts but the extra pins are just additional grounds. The 6 pin power connectors on the z620 are designed for 18 amps at 12 volts (which comes out to 216 watts). In addition, they provide the three power lines that are needed to feed this kind of wattage. I bought two 6 to 8 pin converters to use with these overspeced 6 pin connectors.

One problem that has came up is that the gtx 980 that I got from Jake requires an 8 pin and a 6 pin connector. This seems like too much since I'd like to have the flexibility to add a second gpu.

# 03 March 2019

## Error setting up Plume

Currently getting

```
thread 'main' panicked at 'called `Result::unwrap()` on an `Err` value:
BadType("production.secret_key", "a 256-bit base64 encoded string", "string", None)',
src/libcore/result.rs:1009:5
note: Run with `RUST_BACKTRACE=1` for a backtrace.
```

on launch

Fixed, it was an error with the ROCKET\_SECRET\_KEY

## Customized CSS

Currently I have a fork of plume running with a separate branch called `mod_css` on github. This is where I'm keeping my modified version of plume.

## Issues with curl?

I've been having some issues with zypper hitting a segmentation fault during the download stage of the distribution upgrade.

I have also been having issues with NetworkManager consuming 100% of my cpu when running on wifi.

By downgrading curl from version 7.64.0-4.1 to version 7.64.0-1.1 by running

```
sudo zypper install --oldpackage curl-7.64.0-1.1
```

This appears to have fixed the network manager issue. I also added a lock on curl since it continues to want update curl to this latest broken version.

This definitely seems to have resolved the issue with zypper as well. I just did a distribution upgrade with 450 packages and didn't run into a segmentation fault a single time. I would have had about 20 segfaults before.

# May 2019

## Install cuda on ubuntu 19.04

### install drivers

```
sudo apt install lightdm
```

This is required because gdm3 does not work well with nvidia's proprietary drivers but lightdm does. When you install lightdm, there will be a prompt to determine what desktop manager should be the default. Select lightdm.

```
sudo add-apt-repository ppa:graphics-drivers/ppa
sudo apt install dkms build-essential
sudo apt update
sudo apt install nvidia-driver-418
```

Before updating, I like to make sure I'll be able to get back into my system. By default, ubuntu 19 comes with a 0 second timeout on grub. Which is stupid. edit `/etc/default/grub` and change `GRUB_TIMEOUT` to something higher than 0. This will allow you to get into recovery mode easily if you break your system.

Then run,

```
sudo update-grub
```

to make your changes to the grub config take affect.

Then reboot your system.

# May todo

Switch backup drive to deduped zfs with compression

Redo backup scripts to automate upload to backblaze

Figure out whether to keep fileserver

After running stress -32 on imara, the front processor was 77 and the back was 88.