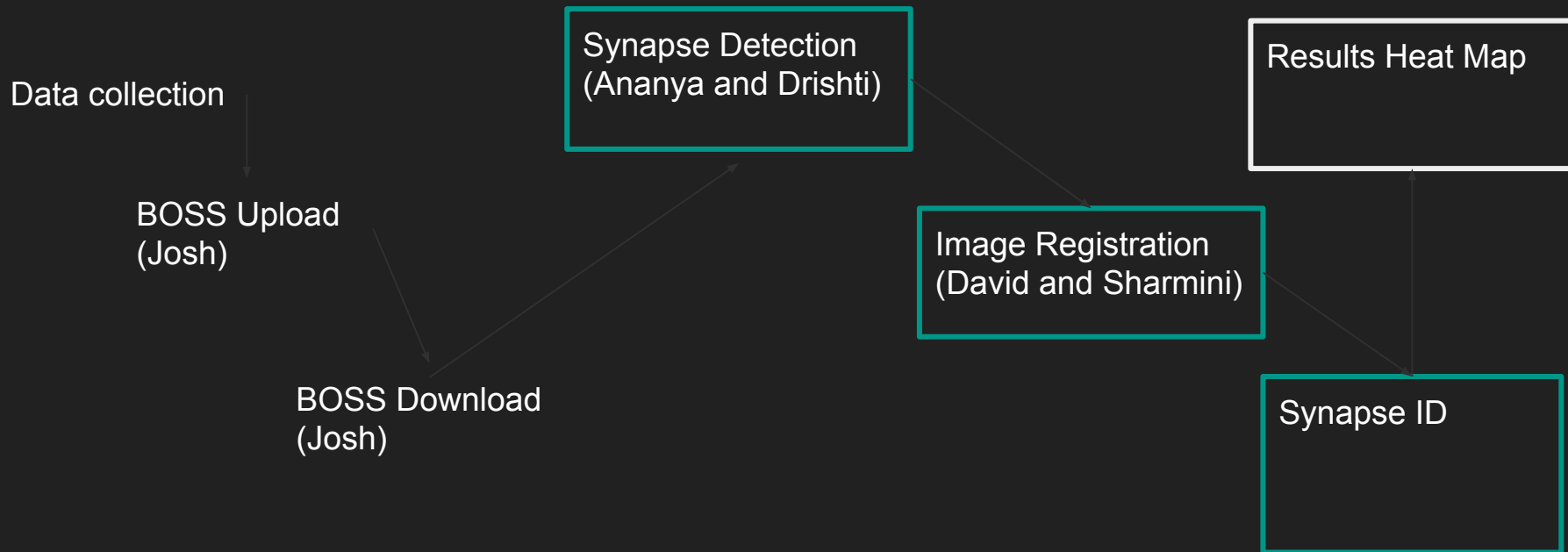


LIDS

Week of 2/26 Deliverables

Pipeline



Drishti's Goals

Last week:

- Run Cobalt's Bloby package

Sprint 3:

We are your checkpoint, and you are our starting point:

- Synapse detection: run existing algorithms on our data. Use results to either optimize the same algorithms or initiate construction of another

We understand what we are about, does anyone else?

- Maintain central web presence using Github pages

Drishti's Deliverables

Running Docker on local data:

```
DrishTis-MacBook-Pro:~ drishtimannan$ docker run -it -d -v /Users/drishtimannan/
/Documents/ndd/lids/tp1_substack/R04_tp1_substack\ \ (17-32\).tif srivathsapv/blo
by bin/bash
58bb2b1d2b2fda368dd4790dd45111c82e008297b05e62f8dbc28b9b41f03629
docker: Error response from daemon: OCI runtime create failed: container_linux.g
o:296: starting container process caused "exec: \"bin/bash\": stat bin/bash: no
such file or directory": unknown.
```

Drishti's Next Week Goals

Use Bootstrap templates to create a *dope-r* version of LIDS' page - add team info/pics

Work with Srivathsa to update and run Bloby

Sharmini's Goals

Last week:

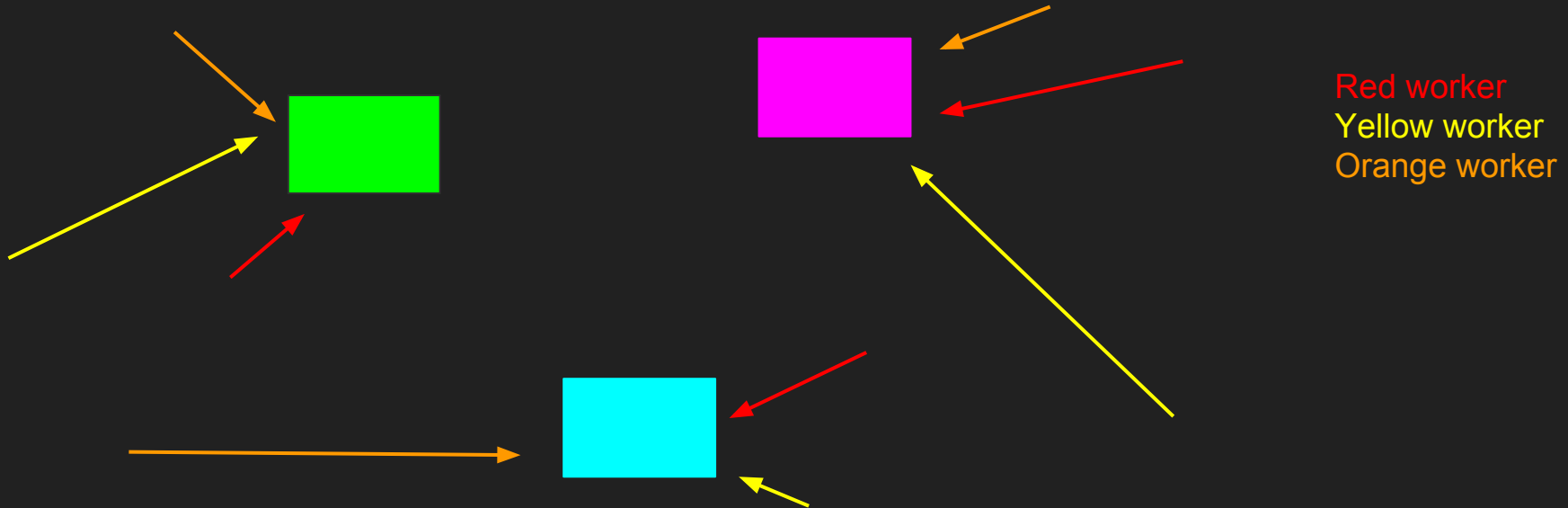
- Literature Review (Probabilistic fluorescence-based synapse detection)
- Research image registration techniques - Hungarian algorithm
- Update LIDS GH pages

Sprint 3:

- Match points in images across timesteps
 - DoD: Jupyter notebook running the Hungarian algorithm

Sharmini's Deliverables

- Hungarian Algorithm - what is it?
 - Combinatorial optimization algorithm that solves the assignment problem in polynomial time
- Example:



Sharmini's Next Week Goals

- Hungarian Algorithm Literature Review
- Hungarian Algorithm python implementation
- Continue to update LIDS website with contributors section, etc.

Ananya's Goals

Last week:

- Make Docker work
- Run bloby

Sprint 3:

- Run bloby and both of NOMADS' algorithms with overlays to determine accuracy

Ananya's Deliverables

```
ananyas@LAPTOP-2T7TS87R:~$ sudo docker run hello-world
[sudo] password for ananyas:
Sorry, try again.
[sudo] password for ananyas:
docker: Cannot connect to the Docker daemon at unix:///var/run/docker.sock. Is the docker daemon running?.
See 'docker run --help'.
ananyas@LAPTOP-2T7TS87R:~$
```



You need to add your current user [suppose you're logged in as ubuntu] to docker group as follow

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```
sudo usermod -aG docker $(whoami)
```



then **logout & login again** into the system or restart the system. test by `docker version`



for further info how to install docker-engine follow [docker documentation](#)

Ananya's Deliverables

Typically, you start Docker using operating system utilities. For debugging purposes, you can start Docker manually using the `dockerd` command. You may need to use `sudo`, depending on your operating system configuration. When you start Docker this way, it runs in the foreground and sends its logs directly to your terminal.

```
INFO[0000] serving... address="/var/run/docker/containerd/docker-co
nsole=containerd/grpc"
INFO[0000] containerd successfully booted in 0.061863s module=containerd
INFO[2018-02-26T14:19:18.401196600-05:00] [graphdriver] using prior storage driver: overlay2
INFO[2018-02-26T14:19:18.437500000-05:00] Graph migration to content-addressability took 0.00 seconds
WARN[2018-02-26T14:19:18.438380900-05:00] Your kernel does not support cgroup memory limit
WARN[2018-02-26T14:19:18.439076600-05:00] Unable to find cpu cgroup in mounts
WARN[2018-02-26T14:19:18.439852900-05:00] Unable to find blkio cgroup in mounts
WARN[2018-02-26T14:19:18.440602400-05:00] Unable to find cpuset cgroup in mounts
WARN[2018-02-26T14:19:18.441629900-05:00] mountpoint for pids not found
Error starting daemon: Devices cgroup isn't mounted
ananyas@LAPTOP-2T7TS87R:~$
```

Ananya's Deliverables



Try the following:

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- Log into Ubuntu as a user with sudo privileges.
- Edit the `/etc/default/grub` file.
- Set the `GRUB_CMDLINE_LINUX` value as follows:

```
GRUB_CMDLINE_LINUX="cgroup_enable=memory swapaccount=1"
```

- Save and close the file.
- Update GRUB.

```
$ sudo update-grub
```

- Reboot your system.

Ananya's Deliverables

```
# Set the recordfail timeout
GRUB_RECORDFAIL_TIMEOUT=0

# Do not wait on grub prompt
GRUB_TIMEOUT=0

# Set the default commandline
GRUB_CMDLINE_LINUX_DEFAULT="cgroup_enable=memory swapaccount=1"

# Set the grub console type
GRUB_TERMINAL=console

grub-mkconfig -o /boot/grub2/grub.cfg

cat /boot/grub2/grub.cfg | grep cgroup

"50-cloudimg-settings.cfg"
"50-cloudimg-settings.cfg" E212: Can't open file for writing
Press ENTER or type command to continue_
```

Ananya's Next Week's Goals

- Work with Vikram/David to get Cortex (and thereby Docker, hopefully)
- Run blobby and compare images to determine accuracy

David's Goals

Last week:

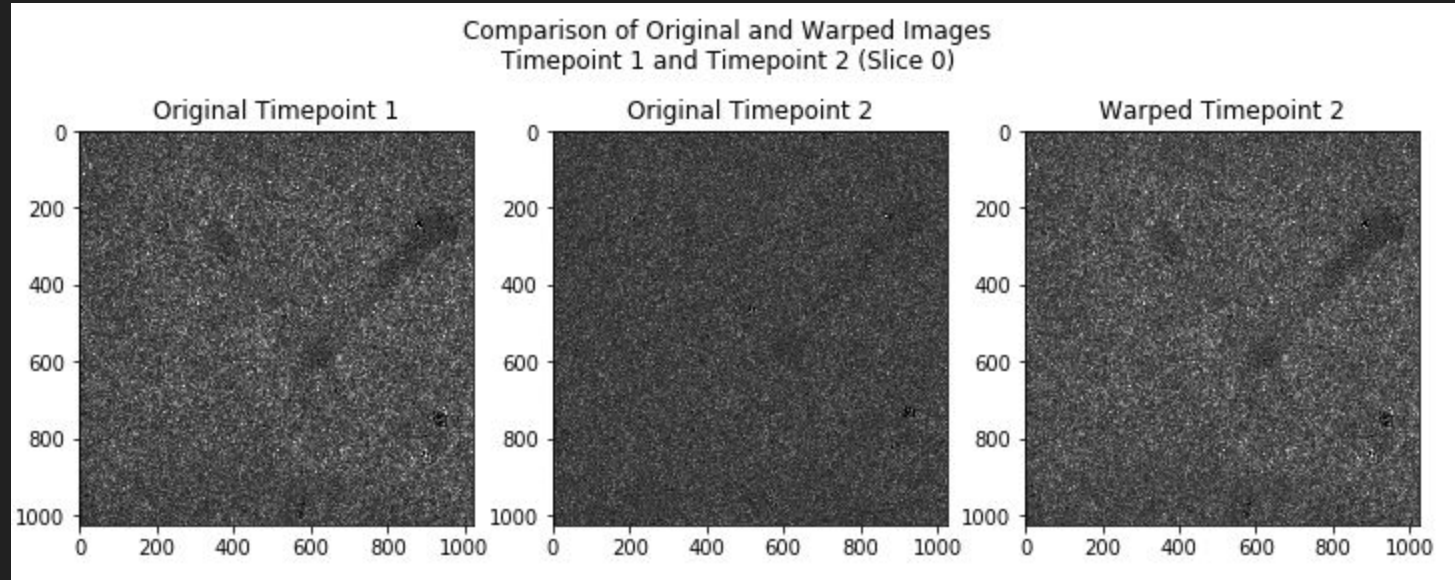
- Rigid image registration on Huganir data with ndreg

[Notebook Link](#)

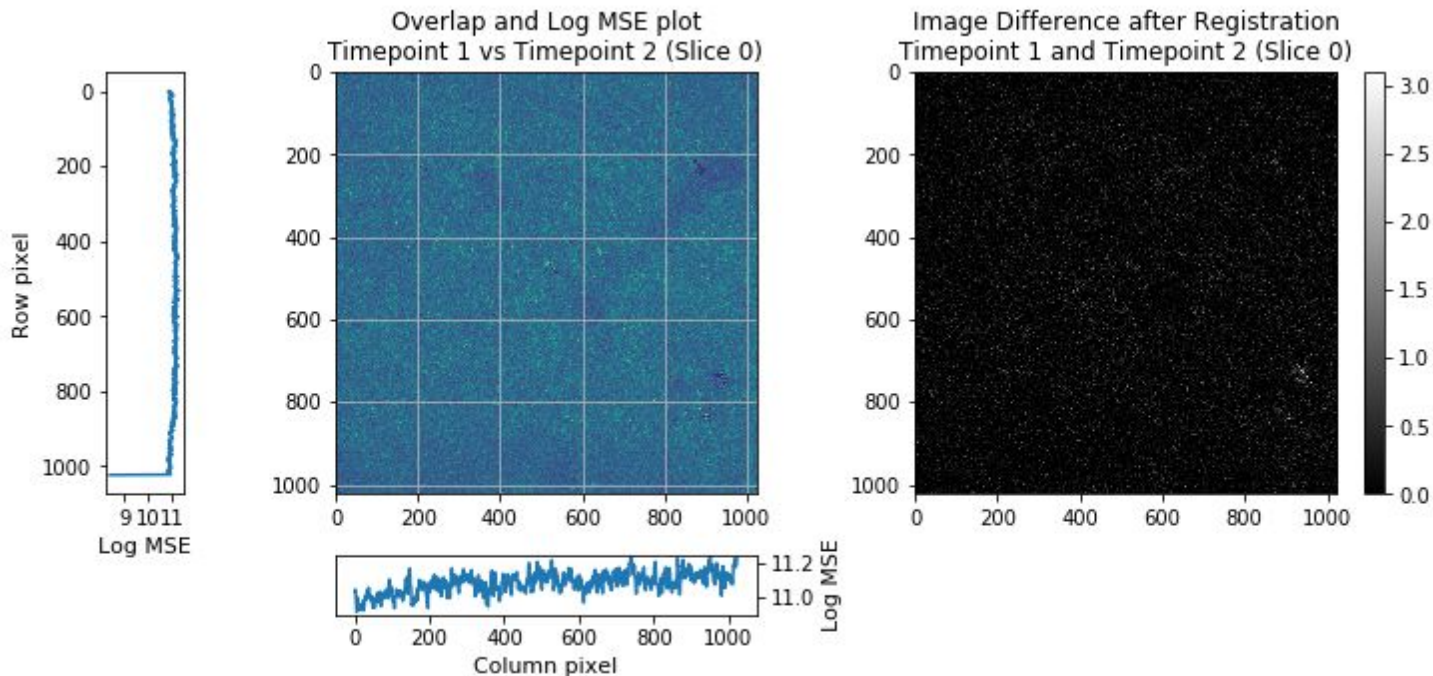
Sprint 3:

- Add n-way rigid image registration to ndreg

David's Deliverables



David's Deliverables



Slice 0: Registration error is: 0.121120085742 voxels²

David's Next Week Goals

- Improve pre-processing of images
- Do 4-way registration in ndreg
 - DoD: Overlay of all timepoints of Hugarir data for all slices