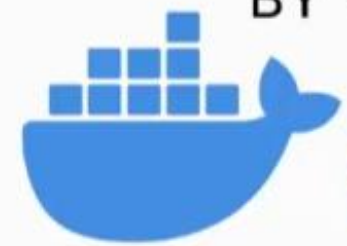# Summer 2024 Intern Presentations

Collated by Justin Wilson

RKE2 KUBEFLOW

WHAT I'VE LEARNED

Security Measures

- Key pairs
- Security groups
- MFA

Amazon Web Services (AWS)

- Creating Instances
- Creating a cluster with RKE2
- IPs & Elastic IPs

Rancher

- Deploy cluster
- Manages cluster

Docker & Containers

- Create containers
- Works with Kubernetes
- Manage with Rancher

Experience in Terminal

- Windows to MacOS
- Practice commands
- coding & formating in vim (GitHub)

Terminal 1 (ubuntu@ip):

```
PS C:\Users\email> ssh -i C:\Users\email\Downloads\       _KP_2024.pem ubuntu@
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.8.0-1009-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro

 System information as of Tue Jul 23 04:08:35 UTC 2024

  System load:  0.6               Processes:             205
  Usage of /:   24.4% of 60.95GB  Users logged in:       0
  Memory usage: 64%               IPv4 address for enX0:
  Swap usage:   0%

 => There is 1 zombie process.

 * Ubuntu Pro delivers the most comprehensive open source security and
   compliance features.

   https://ubuntu.com/aws/pro

Expanded Security Maintenance for Applications is not enabled.

44 updates can be applied immediately.
20 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Tue Jul 23 04:08:36 2024 from
ubuntu@ip-172-31-21-62:~$
```
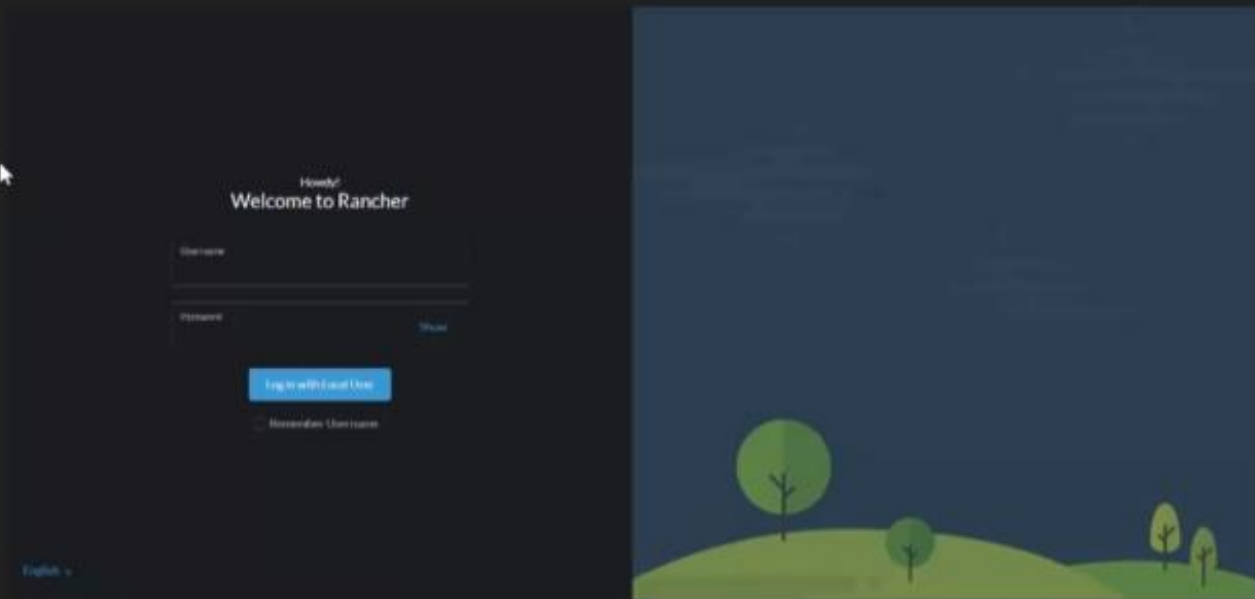
Rancher window:

Howdy!
Welcome to Rancher

Username

Password

Log in with Local User

Remember Username

English

Terminal 2 (MINGW64):

MINGW64:/c/Users/email/rke2-kubeflow

```
email@DESKTOP-9CCEL2R MINGW64 ~/rke2-kubeflow (         )
$ git switch main
Switched to branch 'main'
Your branch and 'origin/main' have diverged,
and have 1 and 11 different commits each, respectively.
  (use "git pull" if you want to integrate the remote branch with yours)

email@DESKTOP-9CCEL2R MINGW64 ~/rke2-kubeflow (main)
$ git pull
remote: Enumerating objects: 26, done.
remote: Counting objects: 100% (11/11), done.
remote: Compressing objects: 100% (6/6), done.
remote: Total 26 (delta 4), reused 8 (delta 4), pack-reused 15
Unpacking objects: 100% (26/26), 10.63 KiB | 205.00 KiB/s, done.
From https://github.com/jawhster/rke2-kubeflow
   216c4e9..605d517  main        -> origin/main
   010ba9d..64d442a              -> origin/
error: Empty commit message.
Not committing merge; use 'git commit' to complete the merge.

email@DESKTOP-9CCEL2R MINGW64 ~/rke2-kubeflow (main|MERGING)
$
```

2024 Summer
RKE2 Kubeflow

I learned

- Create AWS EC2 instances

- ssh into EC2 instances

- Github

- Deploy Python app on RKE2 cluster

I liked

- Hands on experience
- Github (AI coding assist)