

ACM Containers 101 Workshop

Docker Demo

1. Install Docker
2. Account verification
3. `docker --version`
4. `docker run hello-world`
5. `docker ps`
6. `docker build -t xor-nn .` # building an image using the docker file
7. `docker images`
8. `docker run xor-nn` # creates a container from image and runs it
9. `docker ps`
10. `docker ps -a`
11. `docker rm <container_id>` # removing container
12. `docker container prune` # removes all paused container
13. `docker rmi xor-nn` # removes image
14. `docker exec -it <container_id> bash` # login into container terminal

Some docker commands

1. `kind create cluster --name demo` # create a local Kubernetes cluster
2. `kubectl cluster-info` # show cluster control plane info
3. `kubectl get nodes` # show nodes in the cluster

Deploy a container (nginx example)

1. `kubectl create deployment web --image=nginx` # create a Deployment
2. `kubectl get deployments` # show deployments
3. `kubectl get pods` # show running pods

Inspect what Kubernetes have created

1. `kubectl describe deployment web` # detailed deployment info
2. `kubectl get pods -o wide` # show pod IPs and node info

Since we're using kind (runs in Docker), use port-forward:

1. `kubectl port-forward svc/web 8080:8`