

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