

# kubernetes

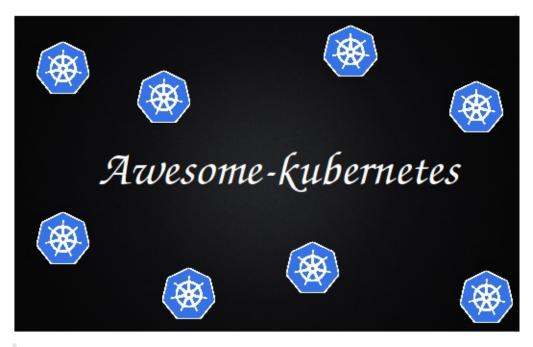
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#### **Awesome-Kubernetes**



A curated list for awesome kubernetes sources Inspired by @sindresorhus' awesome



"Talent wins games, but teamwork and intelligence wins championships."

-- Michael Jordan

Without the help from these amazing contributors, building this awesome-repo would never has been possible. Thank You very much guys!!

Thanks to Gitbook. This awesome list can now be downloaded and read in the form of a book. Check it out --> https://www.gitbook.com/book/ramitsurana/awesome-kubernetes/. Keep Learning Keep Sharing!!

If you see a package or project here that is no longer maintained or is not a good fit, please submit a pull request to improve this file. Thank you!

#### What is Kubernetes? :ship:

Kubernetes is an open-source system for automating deployment, scaling, and management of containerized applications. It groups containers that make up an application into logical units for easy management and discovery.

Source: What is Kubernetes

## **History:**

#### Kubernetes is known to be a descendant of Google's system BORG

The first unified container-management system developed at Google was the system we internally call Borg. It was built to manage both long-running services and batch jobs, which had previously been handled by two separate systems: Babysitter and the Global Work Queue. The latter's architecture strongly influenced Borg, but was focused on batch jobs; both predated Linux control groups.

Source: Kubernetes Past

#### Date of Birth:

Kubernetes celebrates its birthday every year on 21st July. Kubernetes 1.0 was released on July 21 2015, after being first announced to the public at Dockercon in June 2014.

# Roadmap

The awesome-kubernetes will now soon be available in the form of different releases and package bundles, It means that you can download the awesome kubernetes release up to a certain period of time, The release for awesome kubernetes 2015 bundle is released. Checkout the releases column for more info. Stay tuned for more updates.

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# **Starting Point**

#### A place that marks the beginning of a journey

- Kubernetes Community Overview and Contributions Guide by Ihor Dvoretskyi
- Are you Ready to Manage your Infrastructure like Google?
- Google is years ahead when it comes to the cloud, but it's happy the world is catching up
- An Intro to Google's Kubernetes and How to Use It by Laura Frank
- · Getting Started on Kubernetes by Rajdeep Dua
- Kubernetes: The Future of Cloud Hosting by Meteorhacks
- Kubernetes by Google by Gaston Pantana
- Key Concepts by Arun Gupta
- Application Containers: Kubernetes and Docker from Scratch by Keith Tenzer
- Learn the Kubernetes Key Concepts in 10 Minutes by Omer Dawelbeit
- Top Reasons Businesses Should Move to Kubernetes Now by Mike Johnston
- The Children's Illustrated Guide to Kubernetes by Deis
- The 'kubectl run' command by Michael Hausenblas
- Docker Kubernetes Lab Handbook by Peng Xiao
- Curated Resources for Kubernetes
- Kubernetes Comic by Google Cloud Platform
- Kubernetes 101: Pods, Nodes, Containers, and Clusters by Dan Sanche
- An Introduction to Kubernetes by Justin Ellingwood
- Kubernetes and everything else Introduction to Kubernetes and it's context by Rinor Maloku

- Installation on Centos 7
- Setting Up a Kubernetes Cluster on Ubuntu 18.04
- Cloud Native Landscape

#### **Installers**

- Minikube Run Kubernetes locally
- Kops OS Agnostique AWS
- Kube-deploy
- Kubeadm OS Agnostique Cloud Agnostique
- Kubespray OS Agnostique Cloud Agnostique
- Bootkube CoreOS Cloud Agnostique
- Kube-aws CoreOS AWS
- Kismatic CentOS Cloud Agnostique
- Juju Ubuntu Cloud Agnostique
- Terraform CoreOS AWS
- Supergiant CoreOS Cloud Agnostique
- sealos Simple kubernetes HA installer
- Archon OS Agnostique Cloud Agnostique
- KubeNow Ubuntu Cloud Agnostique
- Kubicorn OS Agnostique Cloud Agnostique
- Simplekube systemd OS Cloud Agnostique
- Conjure-up Ubuntu Cloud Agnostique
- Kube-ansible OS Agnostique Cloud Agnostique
- Kubernetes-Saltstack systemd OS Cloud Agnostique
- matchbox CoreOS Network boot and provision Container Linux clusters (e.g. etcd3, Kubernetes, more).
- RKE OS Agnostique Cloud Agnostique
- Typhoon Container Linux Cloud Agnostique
- Docker for Windows Run Kubernetes and Docker locally on your Windows PC (Edge Channel)
- Docker for MAC Run Kubernetes and Docker locally on your MAC (Edge Channel)
- MetalK8s CentOS On-Prem Cloud Agnostique Apache-2.0

#### **Main Resources**

Official resources from the Kubernetes team

- Kubernetes Documentation
- Kubernetes Source
- Kubernetes Troubleshooting

#### **Release Notes**

Official release notes from the Kubernetes team on Stable Kubernetes Releases

- Kubernetes-1.13
- Kubernetes-1.12
- Kubernetes-1.11
- Kubernetes-1.10
- Kubernetes-1.9
- Kubernetes-1.8
- Kubernetes-1.7
- Kubernetes-1.6
- Kubernetes-1.5
- Kubernetes-1.4
- Kubernetes-1.3
- Kubernetes-1.2

#### **Useful Articles**

A piece of writing included with others in a newspaper, magazine, or other publication

#### **Cloud Providers**

- Kubernetes on AWS by CoreOS
- AWS Advent 2014 CoreOS and Kubernetes on AWS by Tim Dsyinger
- Kubernetes and AWS VPC Peering by Ben Straub
- Testing Kubernetes on AWS by Alan Will
- Kubernetes: First steps on Amazon AWS by Remco
- Logging in Kubernetes with Fluentd and Elasticsearch by Jon Langemak
- Manage Kubernetes Clusters on AWS Using Kops
- Corekube: Running Kubernetes on CoreOS via OpenStack by Mike Metral
- Production grade Kubernetes on AWS: Primer (Part 1) by Guy Maliar
- Production grade Kubernetes on AWS: 4 tools that made our lives easier (Part 2) by Guy Maliar
- Production grade Kubernetes on AWS: 3 tips for networking, ingress and microservices

(Part 3) by Guy Maliar

- Production grade Kubernetes on AWS: 3 lessons learned scaling a cluster (Part 4) by Guy Maliar
- Continuous Deployment with Google Container Engine and Kubernetes
- Creating a Kubernetes Cluster on DigitalOcean with Python and Fabric
- Deploy a Kubernetes development cluster with Juju! by Matt Bruzek
- Containers at Scale with Kubernetes on OpenStack by Keith Tenzer

#### Logging

Logging - Kafka topic by namespace by Michael Ward

#### **Monitoring**

- Kubernetes Monitoring Guide by JM Saponaro
- Installing cAdvisor and Heapster on bare metal Kubernetes by Jon Langemak
- How to Monitor Kubernetes: A 4-Part Series

#### **Security**

- Kubernetes Security Guide RBAC, TLS, Security policy, Network policy, etc.
- Handling Sensitive Data In A Docker Application with Kubernetes Secrets by John Kariuki
- How to Create and Use Kubernetes Secrets by Mohamed Ez Ez
- Kubernetes Security Best Practices by Peter Benjamin
- Running Vault and Consul on Kubernetes by Michael Herman

#### **Authentication**

- Kubernetes Authentication plugins and kubeconfig by Jon Langemak
- Kubernetes Authentication OpenID Connect by Michael Ward

#### **Networking**

- Enable IPv6 on Kubernetes with Project Calico by Valentin Ouvrard
- Kubernetes in IPV6-only by Valentin Ouvrard
- Kubernetes 101 Networking by Jon Langemak
- Kubernetes with OpenStack Cloud Provider: Current state and upcoming changes (part 1 of 2)
- Comparison of Networking Solutions for Kubernetes

#### CI/CD

- GitOps: High-Velocity CI/CD for Kubernetes
- Achieving CI/CD with Kubernetes by Ramit Surana
- Jenkins declarative pipelines with Kubernetes

#### **Deep Learning**

Automate deep learning training with Kubernetes GPU-cluster

#### **Others**

- Packaging Multiple Resources together
- Scaling Docker with Kubernetes by Carlos Sanchez
- Creating a Kubernetes Cluster to Run Docker Formatted Container Images by Chris Negus
- Containerizing Docker on Kubernetes !! by Ramit Surana
- Quay: Introducing an Application Registry for Kubernetes by Antoine Legrand
- Play With Kubernetes Quickly Using Docker
- 1 command to Kubernetes with Docker compose by Sebastien Goasguen
- Nginx Server Deployment using Kubernetes by Rajdeep Dua
- What even is a kubelet? by Kamal Marhubi
- Kubernetes from the ground up: the API server by Kamal Marhubi
- Dynamic Kubernetes installation/configuration with SaltStack by Jon Langemak
- Deploying Kubernetes with SaltStack by Jon Langemak
- CoreOS + Kubernetes Step By Step by Coreos
- Deploying to Kubernetes with Panamax by Brian DeHamer
- Deploy Kubernetes with a Single Command Using Atomicapp by Jason Brooks
- Deploying a Bare Metal Kubernetes Cluster by James Kyle
- Try Kubernetes with Vagrant by Christoph Hartmann
- Keycloak on Kubernetes with OpenShift 3 by Marko Strukelj
- Kubernetes clusters with Oh-My-Vagrant by James
- Fleet Unit Files for Kubernetes on CoreOS by Michael Hamrah
- Kubernetes Container Orchestration through Java APIs by Keith Tenzer
- Docker Clustering Tools Compared: Kubernetes vs Docker Swarm
- Why Docker and Google Kubernetes Are Like PaaS Done Right
- Kubernetes with SaltStack revisited by Jon Langemak
- Deploying Kubernetes with Ansible and Terraform
- Cluster Consul using Kubernetes API
- Kubernetes Production Patterns (and Anti-Patterns)
- Kubernetes with SaltStack revisited

- Introducing Kubic Project
- Three post learn k8s
- Kubernetes tips & tricks
- Running Flask on Kubernetes

# **Managed Kubernetes**

- Platform9
- OpenShift Online
- Eldarion Cloud
- StackPoint Cloud
- Hasura

#### **Cluster Managers**

- Cisco Container Platform
- Gardener AWS, Azure, GCP, and OpenStack cluster manager
- Kubermatic
- Rancher
- PKS Cluster manager by Pivotal, VMWare and Google
- Telekube
- Kqueen

#### **Developer Platform**

- Fabric8 integrated development platform with CD features
- Eclipse Che cloud development workspaces with SSH and multi-user support
- OpenShift.io hosted Fabric8 with Che and Jenkins CI integration
- Spring Cloud integration
- Mantl
- goPaddle
- VAMP
- Draft a tool for developers to create cloud native applications with Kubernetes
- Knative Platform to build, deploy, and manage modern serverless workloads
- DevSpace Build, test and run code directly inside any Kubernetes cluster

#### **Enterprise Kubernetes Products**

CoreOS Tectonic

- OpenShift Container Platform
- SUSE Container as a Service
- Kubermatic
- Canonical Distribution of Kubernetes CDK
- IBM Cloud Private

#### **Public/Private Cloud**

- GKE Google Kubernetes Engine
- AWS EKS Amazon Elastic Container Service
- Azure AKS Azure Kubernetes Service
- Vsphere VMWare VSphere
- Rackspace Rackspace
- Alibaba Cloud Alibaba Cloud Container Service for Kubernetes
- IKS IBM Cloud Kubernetes Service
- Docker EE Docker Enterprise Edition 2.0
- DigitalOcean DigitalOcean Kubernetes
- OKE Oracle Kubernetes Engine

#### **PaaS**

Kubernetes Platform as a Service providers

- Kel
- WSO2
- Rancher
- OpenShift Origin (OKD)
- OpenShift Online/Dedicated/Container Platform
- Eldarion Cloud
- Alauda Container Platform
- Hasura
- teresa Simple PAAS that runs on top of Kubernetes.
- Containerum

# **Interactive Learning Environments**

Learn Kubernetes using an interactive environment without requiring downloads or configuration

Katacoda

- Play with Kubernetes
- Kubernetes Bootcamp
- Magic Sandbox

#### **MOOC Courses / Tutorials**

List of available free online courses(MOOC) and tutorials

#### Courses

- Scalable Microservices with Kubernetes at Udacity
- Introduction to Kubernetes at edX

#### **Tutorials**

- Kubernetes Tutorials by Kubernetes Team
- Kubernetes By Example by OpenShift Team
- Kubernetes Tutorial by Tutorialspoint

#### **Case Studies**

Study of Various different case studies

- Building a Bank with Kubernetes
- Bringing Pokemon Go to Google Cloud
- Monitoring Kubernetes at Wayblazer
- Major League Soccer Monolith to Kubernetes Transition
- Using Kubernetes on AWS
- Kubernetes at Github
- Kubernetes the hard way (installation from scratch)

#### **Persistent Volume Providers**

List of some Persistent Volume Providers for Kubernetes. Check out Persistent Volume Providers for more info

- GCE
- AWS

- Rook
- Glusterfs
- OpenStack Cinder
- CephRBD
- QuoByte
- Kube-Aliyun
- Portworx
- Rancher Longhorn
- Stork
- OpenEBS
- StorageOS
- NetApp Trident
- HPE
- Hitachi
- Pure Storage
- Microsoft

# **Container Storage Interface Plugins**

List of some Container Storage Interface plugins for Kubernetes. Check out Kubernetes-CSI for more info

- AWS EBS
- Ceph
- Cloudscale
- DigitalOcean
- DriveScale
- Ember
- Gluster
- Google Compute Engine Persistent Disk
- Hostpath
- Inmemory
- Intel PMEM-CSI
- MooseFs
- Mesos
- NetApp Trident
- Nexenta
- NFS
- Nutanix
- OpenSDS

- OpenStack Cinder
- Portworx
- Quobyte
- ScaleIO
- Virtual Filesystem
- VMware vSphere

# **Developer Libraries/ Scripts**

List of some libraries & scripts for executions and good referrals

#### **Python**

Pykube

#### **Jenkins**

Jenkinsfile with Helm, Go, Docker, Kubectl, JNLP

# **Projects**

Kubernetes-related projects that you might find helpful

#### **Related Software**

Projects built to make life with Kubernetes even better, more powerful, more scalable

- Argo The Workflow Engine for Kubernetes
- Hypernetes
- Kubernetes Cluster Federation (previously Ubernetes)
- kmachine
- kube-fledged A K8S add-on for creating and managing a cache of container images directly on cluster worker nodes
- Kubefuse
- Kubefwd Bulk port forwarding Kubernetes services for local development.
- KubeSpray
- Kubernetes Ec2 Autoscaler
- Kubeform

- kube-openvpn
- Archon
- Client Libraries
- Kubic-Project
- Telepresence Locally develop/debug services against a remote Kubernetes cluster
- Fission Workflows Workflow-based serverless function composition
- Ambassador API Gateway built on the Envoy Proxy
- Bitnami Kubernetes Production Runtime Installer of a curated collection of popular services to enable logging, monitoring, certificate management, automatic discovery of Kubernetes resources via public DNS servers and other common infrastructure needs.

## **Package Managers**

• Helm - For further information, please check out - Awesome Helm.

## **Monitoring Services**

To maintain regular surveillance over kubernetes

- Console
- Datadog
- eventrouter simple introspective kubernetes service that forwards events to a specified sink.
- Grafana Kubernetes App
- Heapster
- Instana
- Kubebox Terminal console for Kubernetes
- Kubedash
- Kubernetes Operational View read-only system dashboard for multiple K8s clusters
- Kubetail
- Kubewatch
- Netsil
- Outcold Solutions monitoring Kubernetes, OpenShift and Docker in Splunk Enterprise and Splunk Cloud (metrics and log forwarding)
- Prometheus
- Sysdig Monitoring
- Sysdig Open Source
- Weave Scope
- Searchlight

- Ingress Monitor Controller A Kubernetes Controller to watch your ingresses and create liveness alerts for your endpoints
- Kubespy Tools for observing Kubernetes resources in real time, powered by Pulumi.
- Goldpinger display, monitor and alert on inter-cluster connectivity

## **Testing**

Test your applications running on Kubernetes

- kube-monkey Chaos Monkey for Kubernetes clusters
- k8s-testsuite Helm chart for network and loadtesting of a Kubernetes cluster
- Test-Infra
- Sonobuoy Diagnostic tool that runs Kubernetes conformance tests
- PowerfulSeal kills targeted pods and machines to test your software reliability
- Litmus Chaos engineering for stateful workloads on Kubernetes
- Kubeadm-dind-cluster multi-node test cluster based on kubeadm
- kind A single node cluster to run your CI tests against thats ready in 30 seconds

## **Continuous Delivery**

Build-test-deploy automated workflow software designed to make production environments more stable and life better for engineers

- Jenkins
  - Jenkins-Kubernetes Plugin by Carlos Sanchez
  - Automated Image Builds with Jenkins, Packer, and Kubernetes
  - On-demand Jenkins slaves with Kubernetes and the Google Container Engine
  - Jenkins setups for Kubernetes and Docker Workflow
  - Lab: Build a Continuous Deployment Pipeline with Jenkins and Kubernetes
- Jenkins X CI/CD for Kubernetes using Jenkins
- kb8or
- Wercker
- Shippable
- GitLab
- Kontinuous
- Kit
- Spinnaker
- CircleCI
- KubeCl
- Vili

- Keel
- Apollo Open Source application providing teams with self service UI for creating and deploying their services to Kubernetes.
- Weave Flux GitOps reconcoliation operator
- Codefresh Kubernetes CI/CD platform (with private Docker and Helm Chart repositories)
- k8s-deploy-helper Framework to easily deploy Kubernetes applications via GitLab.

## **Serverless Implementations**

- Funktion
- Fission
- Kubeless
- OpenWhisk
- Iron.io
- OpenFaaS
- FaaS-netes
- Nuclio
- Virtual Kubelet Allows nodes to be backed by other services and providers.

### **Operators**

- Prometheus
- Kong API
- Kubernetes Operators
- K8s Operator Workshop
- Cert Operator
- Cert manager by @kelseyhightower
- cert-manager by @jetstack
- Operator Kit
- Container Linux Update Operator
- DB Operator
- etcd
- Elasticsearch
- Memcached
- MySQL
- MongoDB
- PostgreSQL
- PostgreSQL manage PostgreSQL clusters using StatefulSets and Patroni.

- Couchbase
- Kafka
- KubeVirt
- Operator SDK
- kooper Simple Go library to create Kubernetes operators and controllers

#### **Custom Schedulers**

- Scheduler Cost based scheduler
- Sticky Node Scheduler
- ksched Experimental flow based scheduler
- escheduler Written in elixir
- bashScheduler Written in bash

## **Container Support**

A list of linux containers supported by kubernetes.

- Docker:
- Rkt
  - Rktnetes
  - o rktlet Rkt implementation of a Kubernetes
- containerd
- cri-containerd Containerd-based implementation of Kubernetes Container Runtime Interface
- CRI-O (OCI)
- Hyper.sh/frakti Hypervisor-based container runtime
- virtlet Kubernetes CRI implementation for running VM workloads
- infranetes

#### **Database**

- Apache Ignite Memory-centric distributed database, caching, processing platform
- CockroachDB
- Cassandra / DataStax
- MongoDB
- Hazelcast
- Crate

- Minio
- Vitess Horizontal scaling of MySql by Youtube
- RDS Provision RDS databases via CRD from Kubernetes

## **Networking**

- Weave Net
- Canal by Tigera
- OpenContrail
- Nuage
- Kuryr
- Contiv
- Calico
- OpenVSwitch
- Kube-router
- Cilium
- Linen
- CNI-Genie
- Romana
- Infoblox
- External DNS To control DNS records dynamically via Kube resources
- cni-ipvlan-vpc-k8s
- kubernetes-network-policy-recipes
- Multus-cni Multi-homed pod cni
- Network-Controller Open vSwitch, Multiple network interfaces that associate with Kubernetes pods
- AWS VPC CNI Networking plugin using Elastic Network Interfaces
- NSX-T CNI plugin supporting load balancing and distributed firewalls.
- Goldpinger display, monitor and alert on inter-cluster connectivity

#### Service mesh

- Envoy
- Amalgam8 Acquired by Istio
- Linkerd
- Weave Mesh
- Conduit

#### **RPC**

- gRPC
- Micro

## Secret generation and management

- CyberArk Conjur Kubernetes Authenticator Secure your Kubernetes-deployed applications with CyberArk Conjur
- Vault auth plugin backend: Kubernetes
- Vault controller
- kube-lego
- k8sec
- kubernetes-vault
- kubesec Secure Secret management
- Sealed Secrets
- Secure GitOps Using Weave Cloud Deploy And Bitnami's Sealed Secrets
- Kamus A GitOps, zero-trust solution for secrets encryption/decryption solution.

## Web applications

- Kubernator
- Kubeapps A web-based UI for deploying and managing applications in Kubernetes clusters

### **Desktop applications**

Kubernetic

#### **Mobile applications**

- Cabin
- Cockpit

## **API/CLI** adaptors

- click A CLI focused REPL for quickly interacting with Kubernetes objects.
- kube-prompt Interactive kubernetes client built using go-prompt.
- Kube-shell Integrated shell for working with the Kubernetes CLI
- Kubebot
- kubectx switch between clusters on kubectl
- kubens switch between namespaces on kubectl
- StackStorm
- Kubefuse
- Ksql
- kubectld
- Kubesh Work around kubectl
- Kubectl Aliases Aliases for Kubectl
- Vikube Kubernetes operations from Vim, in Vim
- kube-ps1 Kubernetes prompt helper for bash and zsh.
- kube-tmux Kubernetes tmux plugin to display the current context and namespace
- kubensx Simpler Cluster/User/Namespace switching for Kubernetes (featuring interactive mode and wildcard/fuzzy matching).
- stern Multi pod and container log tailing
- kubeplay
- kubectl-plugins A collection of kubectl plugins handling everything from easy context switches to connecting to a container as any user (root included) via exec. Slightly tailored towards GKE users.
- kubectl-trace Schedule bpftrace programs on your kubernetes cluster using this kubectl plugin

## Application deployment orchestration

- ElasticKube
- AppController
- Kb8or
- IBM UrbanCode
- Nulecule
- Deployment manager
- Psykube
- Brigade Event Based Scripting using JavaScript
- Skaffold Command line tool that facilitates continuous development for Kubernetes applications.
- Gitkube Build and deploy docker images on Kubernetes using git push.

## Configuration

- Kompose
- Jsonnet
- K8comp
- Ktmpl
- Konfd
- kenv
- kubediff
- thesus A command-line utility and importable package for comparing sets of Kubernetes objects
- Habitat
- Puppet
- Ansible
- Saltstack
- Chef
- kubegen
- kustomize Customization using partial specs
- kapitan Manage complex deployments using jsonnet and jinja2
- kubecfg Combines jsonnet and kubectl to let you declare systems in an easy to override way

## **Security**

- Aquasec
- Authenticator A tool for using AWS IAM credentials to authenticate to a Kubernetes cluster
- Dex OpenID and OAuth for Kubernetes
- Guard Authenticaton webhook server with support for Github, Gitlab, Google, Azure and LDAP (AD) as identity providers.
- kiam Allows cluster users to associate AWS IAM roles to Pods.
- kube-bench The Kubernetes Bench for Security is a Go application that checks whether Kubernetes is deployed according to security best practices.
- kube-hunter Hunt for security weaknesses in Kubernetes clusters.
- kube2iam Provides different AWS IAM roles for pods running on Kubernetes
- Kubesec.io
- Sysdig Falco
- Sysdig Secure
- Trireme

Twistlock

## **Load balancing**

- Avi Networks Software Load Balancer | Intelligent WAF | Elastic Service Mesh
- AWS ALB Ingress Controller
- Cloudflare Warp Ingress
- Contour Kubernetes ingress controller for Lyft's Envoy proxy
- F5 Big IP Controller
- Gimbal Platform capable of routing traffic to multiple Kubernetes and OpenStack clusters
- Gloo Envoy-based API gateway and ingress controller
- HAProxy Ingress
- MetalLB load-balancer implementation for bare metal Kubernetes clusters, using standard routing protocols.
- NGINX Ingress Controller
- Nginx Plus
- Skipper HTTP router and reverse proxy for service composition, including use cases like Kubernetes Ingress
- Traefik
- Voyager Secure HAProxy based Ingress Controller

#### **Big Data**

- Kube-Yarn
- Spark

### **Machine Learning**

- TensorFlow k8s
- mxnet-operator Tools for ML/MXNet on Kubernetes.
- kubeflow Machine Learning Toolkit for Kubernetes.
- seldon-core Open source framework for deploying machine learning models on Kubernetes
- FfDL Deep Learning Platform offering TensorFlow, Caffe, PyTorch etc. as a Service on Kubernetes
- Polyaxon An open source platform for reproducible machine learning and deep learning on kubernetes

 MLT - Machine Learning Container Templates: easy to use container and kubernetes object templates.

## **Service Discovery**

- Consul
  - Kelsey Hightower Consul
  - Bridge between Kubernetes and Consul

## **Operating System**

- CoreOS
- Kurma
- GCI
- LinuxKit

# YAML/JSON Config

- ksonnet-lib
- kube-libsonnet Generic library of Kubernetes objects for Jsonnet/Kubecfg with object to array mapping for painless overrides.
- kompose
- kubeval
- kubegen

## **Tuning**

Ktune

# **Backup and Disaster Recovery**

- Ark Utility for managing backup and restore of Kubernetes clusters.
- burry.sh Cloud Native backup and recovery for etcd, zookeeper and consul
- kube-backup Sync kubernetes state to git.

# Raspberry Pi

Some of the awesome findings and experiments on using Kubernetes with Raspberry Pi.

- Check out Kubecloud
- Setting up a Kubernetes on ARM cluster
- Setup Kubernetes on a Raspberry Pi Cluster easily the official way! by Mathias Renner and Lucas Käldström
- How to Build a Kubernetes Cluster with ARM Raspberry Pi then run .NET Core on OpenFaas by Scott Hanselman

#### **Books**

A written or printed work consisting of pages glued or sewn together along one side and bound in covers that provide us with information

- Kubernetes: Up and Running by Kelsey Hightower
- Cloud Native DevOps with Kubernetes by John Arundel, Justin Domingus (blog)
- Docker and Kubernetes Under the Hood (Chinese) by Harry Zhang, Jianbo Sun and ZJU SEL lab
- Kubernetes: Scheduling the Future at Cloud Scale by Dave K. Rensin
- Kubernetes in Action by Marko Lukša
- Kubernetes Cookbook Second Edition by Hideto Saito, Hui-Chuan Chloe Lee, Ke-Jou Carol Hsu
- Getting Started with Kubernetes by Jonathan Baier
- Kubernetes Handbook (OpenSource Book in Chinese) by Pengfei Ni
- Mastering Kubernetes by Gigi Sayfan
- OpenShift in Action by Jamie Duncan & John Osborne
- The DevOps 2.3 Toolkit: Kubernetes by Viktor Farcic
- Kubernetes Handbook (OpenSource Book in Chinese) by Jimmy Song
- DevOps with Kubernetes by Hideto Saito, Hui-Chuan Chloe Lee, Cheng-Yang Wu
- Golden Guide to Kubernetes Application Development by Matthew Palmer
- Docker in Action, Second Edition by Jeff Nickoloff and Stephen Kuenzli
- Kubernetes Design Patterns and Extensions by Onur Yilmaz
- Playing with Java Microservices on Kubernetes and OpenShift by Nebrass Lamouchi

#### Slide Presentations

A slide is a single page of a presentation created with software such as PowerPoint or OpenOffice Impress.

- Architecture Overview by enakai00
- Package your Java EE Application using Docker and Kubernetes by Arun Gupta
- Scaling Jenkins with Docker and Kubernetes by Carlos Sanchez
- An Introduction to Kubernetes by Imesh Gunaratne
- Musings on Mesos: Docker, Kubernetes, and Beyond. by Timothy St. Clair
- Cluster management with Kubernetes by Satnam Singh
- A brief study on Kubernetes and its components by Ramit Surana
- Moving to Kubernetes Tales from SoundCloud by Tobias Schmidt
- Kubernetes Scaling SIG (K8Scale) by Bob Wise
- Zero downtime-java-deployments-with-docker-and-kubernetes by Arjan Schaaf
- Kubernetes and CoreOS @ Athens Docker meetup by Mist.io
- Achieving CI/CD with Kubernetes by Ramit Surana
- The Top 5 Metrics to Monitor in Kubernetes

#### **Videos**

A recording of moving visual images made digitally or on videotape.

#### **Main Account**

- Google Developers
- Kubernetes

#### **Other Useful Videos**

- Google I/O 2014 Containerizing the Cloud with Docker on Google Cloud Platform by Google Developers
- Container Orchestration using CoreOS and Kubernetes by Kelsey Hightower
- A Technical Overview of Kubernetes by Bredan Burns
- Docker Containers and Kubernetes with Brian Dorsey by Brian Dorsey
- Alpaca Kubernetes on AWS by Adrien Lemaire
- Arun Gupta: Package your Java applications using Docker and Kubernetes by Arun Gupta
- "Managing Containers at Scale with CoreOS and Kubernetes" by Kelsey Hightower by Kelsey Hightower
- Kubernetes: The Journey So Far Greg DeMichillie by Greg DeMichillie
- DevNation 2015 Paul Bakker Kubernetes: Beyond the basics by Paul Bakker
- Kubernetes-Defined Monitoring
- Testing Distributed Software on Kubernetes with PowerfulSeal at Kubecon 2017 Austin

by Mikolaj Pawlikowski

Shanghai '18: KubeCon + CloudNativeCon

# **Interesting Twitter Accounts**

Twitter is quick, it's easy to communicate on, and is a very valuable social channel for a brand or business if you use it to its full potential, By following these news aggregators, rolling news channels, and companies, you can get the inside scoop of a story long before it hits the mainstream news outlets.

- Kubernetes
- Google Cloud Platform
- Kube Con
- Kismatic
- Engine Yard
- Apcera
- CoreOS
- DevOps Summit
- KubeWeekly
- KubeFacts
- Skippbox Acquired by Bitnami
- Sysdig

## **Amazing People**

- Ahmet Alp Balkan, Software Engineer at Google & Google Kubernetes Engine
- Aparna Sinha, Group Product Manager Kubernetes at Google
- Arun Gupta, Principal Open Source Technologist at Amazon Web Services
- Brandon Philips, CTO at CoreOS
- Brendan Burns, Partner Architect at Microsoft
- Brian Grant, Principal Engineer at Google, Lead Architect of Kubernetes
- Carlos Sanchez, Senior Software Engineer, CloudBees
- Chris Aniszczyk, Chief Operating Officer at Cloud Native Computing Foundation
- Eric Tune, Senior Staff Engineer at Google
- Ihor Dvoretskyi, Developer Advocate at Cloud Native Computing Foundation
- Jessie Frazzelle, Cloud Developer Advocate at Microsoft
- Joe Beda, Founder and CTO at Heptio
- Joseph Jacks, Entrepreneur In Residence at Quantum Corporation

- Kelsey Hightower, Staff Developer Advocate at Google
- Kris Nova, Engineer at Heptio, Creator of Kubicorn
- Michelle Noorali, Software Engineer at Microsoft
- Paris Pittman, Developer Relations Manager Kubernetes at Google
- Patrick Reilly, Office of the CTO at Cisco, Cisco board of member for CNCF
- Tim Hockin, Senior Staff SW Engineer / Engineering Manager at Google

# **Meetup Groups**

An awesome way to connect with kubernauts around the globe

- Amsterdam
- Amsterdam #2
- Atlanta
- Bangalore
- Berlin
- Boston
- Hamburg
- Hong Kong
- London
- Munich
- New York
- Paris
- Pittsburgh
- Pune
- San Francisco
- Seattle
- Worldwide

## **Connecting with Kubernetes**

- Blog
- Freenode
- Twitter
- Google +
- Stackoverflow
- Slack
- Mailing List (user discussion and Q&A)

- Mailing List (developer/contributor discussion)
- Reddit
- Community
- Community Q&A The Office Hours

## **Conferences**

Some must to go and attend conferences on kubernetes

- Kubecon
- Container Camp
- GCP Next
- Docker Con
- Devoxx
- ContainerDays

# Contributing

Contributions are most welcome!

This list is just getting started, please contribute to make it super awesome.

Check out the Contributing Guidelines.

#### License



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