## **Principles of Cloud Computing**

- Introduction to cloud computing
- Cloud service models and enterprise cloud
- The technologies behind cloud computing
- Virtualization
- Containers: the basics
- The technologies behind containers
- Distributed programming and MapReduce
- Introduction to Hadoop Yarn
- Distributed file systems (HDFS)
- Resource management and scheduling in Hadoop
- Introduction to Openstack
- Openstack computing architecture
- Openstack networking architecture
- Introduction to load balancing
- Introduction to auto scaling
- Fog and edge computing
- Introduction to Kubernetes/Docker
- Cloud and IoT
- Security issues in cloud