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Education:

Master's Degree: Electronic and Information Engineering, BeiHang University (BUAA), 2019.
Exchange Student: Institute of Computing Technology, Chinese Academy of Sciences, from 2017.7 to 2018.7.
Bachelor's Degree: Telecommunication, JiLin University, 2016.

Intern and Working Experience:

2019.3 - 2020.1 Working as Software Engineer in VMWare DesktopHypervisor department.
2018.3 – 2019.1 Working as Software Intern at Jeejio, Chinese Academy of Sciences.

Project Experience:

1. Virtual Desktop and Containers combination in VMWare for MacOS. I develop the agent which serves as grpc "server" in desktop-level Linux Virtual Machine for container-level management. Agent is written in go. The project's details are as below:
   (a). For agent which funtions like a "runc-like" grpc server, it receives request from clients like CLI and containerd-shim. And according to the request received, agent will call libcontainer to do the actual operations in vm like CreateContainer will tell agent to create a container in vm along with its network and mount settings and open a stdio or socket for users to interact with containers.
   (b). Unique mount and network settings for containers. For container volumes, with others colleges' help in the project, agent will be a 9p client to consume the 9p operations in vm sharing folders from host into vm for containers to share into. For network settings, vm will get network settings from DHCP server and set the interface in vm up to make network functions. Otherwise, containers will not be accessed from outside.
2. K3scli, a Kind-like CLI tool.
   Like Kind which is a docker-based, simple Kubernetes setup command line tool. K3scli is not using Kind's own image since it is too large. I built a image which contains k3s in it along with openrc and containerd in it. This image could serve as the "server" or "worker" but consumes much less space and time than Kind. For now, k3scli can run multiple Kubernetes cluster in MacOS and Linux based on docker. The frontend of k3scli is written in go while image is built by docker.
3. STT-MRAM energy consumption with SRAM.
   This project is done during pursuing the Master's degree. STT-MRAM is a new RAM technology based on magnetic which can be seen as a replacement of SRAM. Using simulator tool, gem5, I write a STT-MRAM architecture to simulate the r/w operations in computer and thus can be compared with SRAM. Together, a new STT-MRAM write method is proposed which uses the similarity of written data to reduce the written bits to cache thus reducing energy consumption more. This project is written in c++.

Other Skills:

1. CATTI Level 3 English translation.
2. JTEST Level E.
3. CET Level 6.
4. Linux, go, c++, virtual technonlogy, containers technology, docker, K8S.