Fall 2022
Open Horizon Proposal

Description:

- Open Horizon is a platform for managing the service software lifecycle of containerized workloads and related machine learning assets. It enables autonomous management of applications deployed to distributed webscale fleets of edge computing nodes and devices without requiring on-premise administrators.
- Open Horizon allows one to:
    - Add new capabilities to a single-purpose device
    - Enable your device to use other services (both nearby and cloud-based) to enhance its existing capabilities
    - Automate the hands-free management of workload lifecycle on the device
    - Automatically deploy applications to all devices where policies match and an agreement is negotiated

Tech Stack:

- Docker
- Kubernetes
- Makefile
- Dockerfile
- Python
- Java
- C
- Go
- Javascript

Goals:

- Cherry:
    - Gain expertise in Linux, Git, and Docker

    - Attempt to incorporate Open Horizon on a Raspberry Pi
- Julian:
    - Gain technical experience as well as learn to work with a community/team
    - Learn Git and Docker
    - Invest in the prospect of edge computing

Milestones:

October

- Complete some good first issues to become familiar with the inner workings of Open Horizon.
- Build a solid foundation of Docker and Git knowledge that will allow us to eventually work our way up to more complex issues.

November

- Continue working on more and more complex issues while gaining experience in containerized development and edge computing
- While completing issues, think about which long term project to work on within Open Horizon.

December

- Complete required issues and begin exploring new interests within the project
- Start working on independent projects (Open Horizon's QisKit and Detectron2 from the summer semester, for example)

Team members:

- Cherry Bommu
- Julian Chen
- Adam Ayan
- Will Lewis
- Oscar Li

- William Li
- Jeff Gao
- Devanshu Haldar

Spaces:

Discord: RCOS discord #open-horizon channel

Github: https://github.com/open-horizon-services
https://github.com/open-horizon