

Kubernetes On The Edge

Abstract

This project utilizes Kubernetes, Docker, and a Raspberry Pi to create a simple and easy to use Kubernetes deployment pipeline for edge computing with Raspberry Pis.

The goal of the project is to create a deployment pipeline for containerized applications on Raspberry Pi devices. With this pipeline, users should expect to be able to have their application containerized and deployed onto a Kubernetes Cluster. This cluster will be hosted on a Raspberry Pi to allow for affordable scaling of hardware resources with the addition of more Pis.

Principal Members

Team Member	Responsibility
Robert Detjens	Worked on the deployment pipeline
Jacob Balin	Worked on Kubernetes templates
Nathan Hausman	Worked on the deployment website and integration with the pipeline
Mark Ser	Worked on setting up Kubernetes and the K8s dashboard
Paul Lim	Also worked on a portion of the deployment pipeline
Kyle Prouty (<i>Project Partner</i>)	Helped scope the project, provided the equipment, and more!