Dominic Chua
Roche Diagnostics
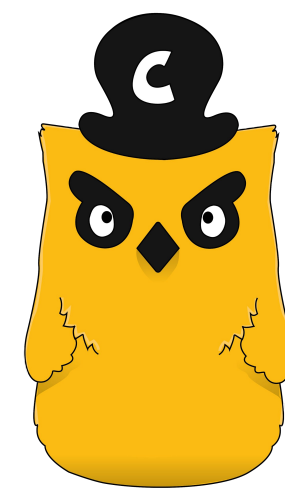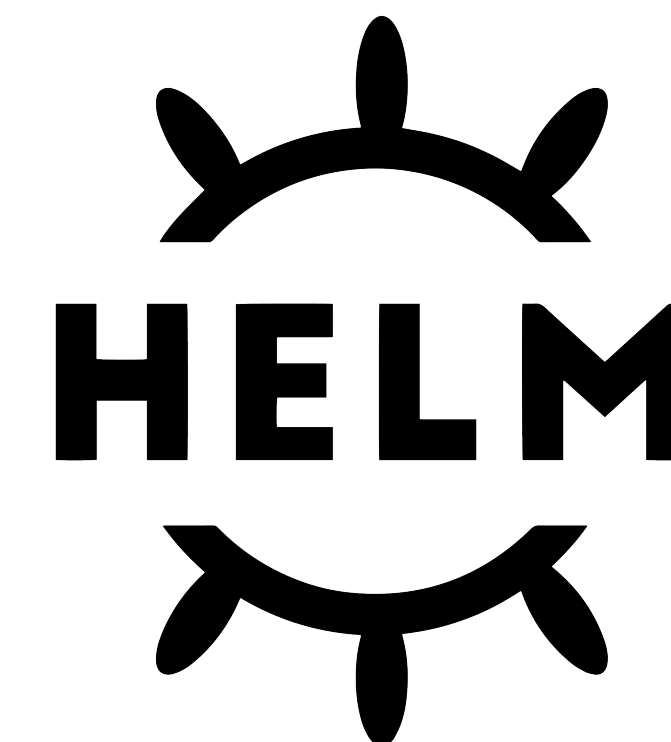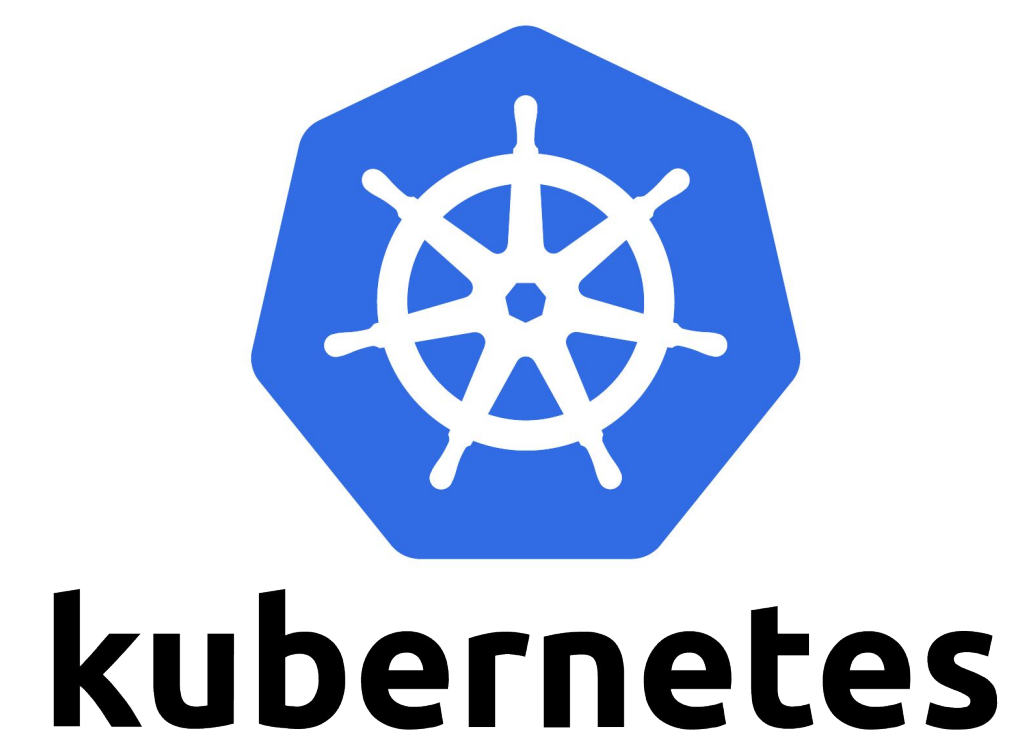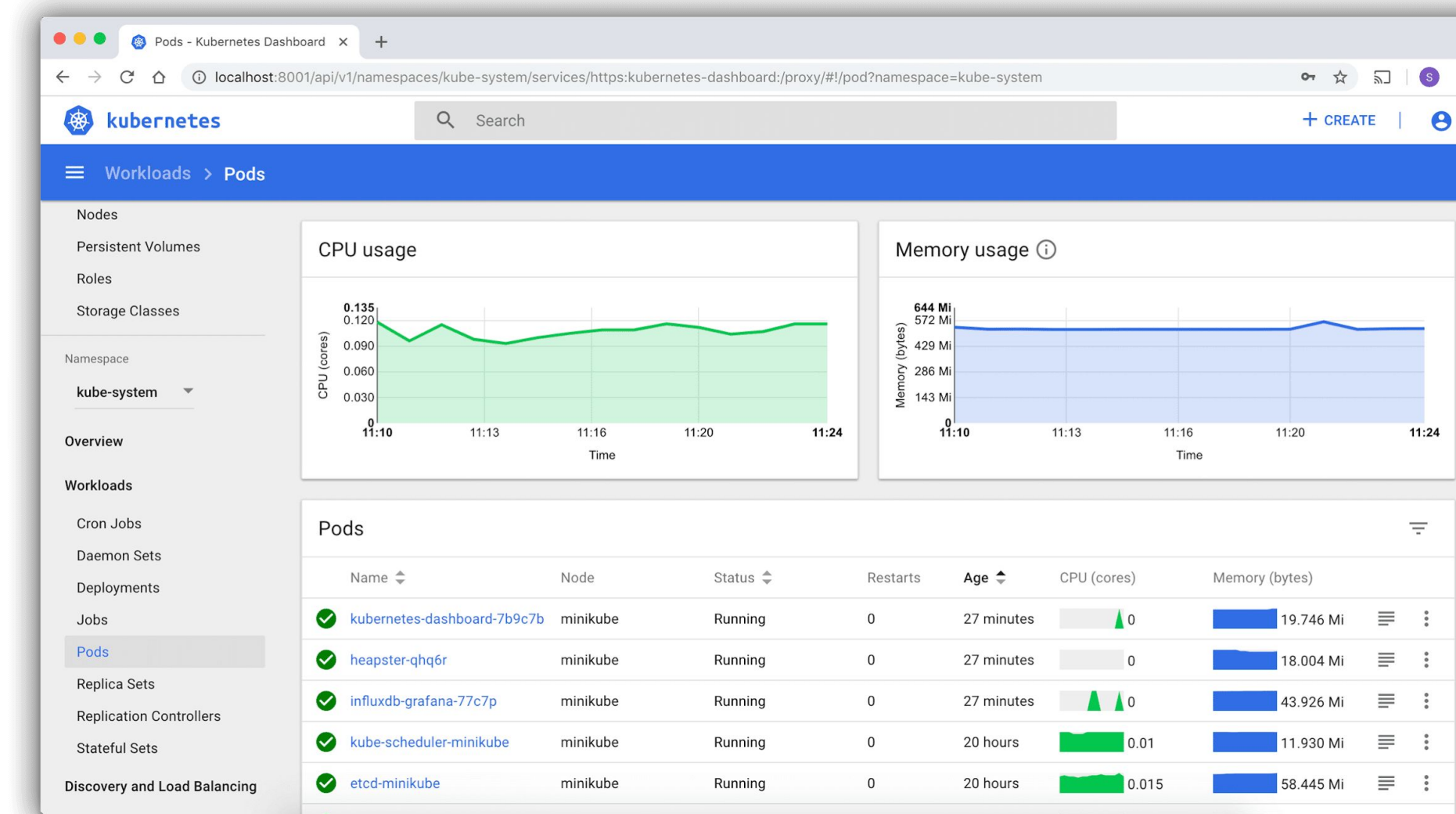# June 2022 - September 2022
Santa Clara, CA

Roche

During my internship I worked with Roche's Navify DevOps team in order to produce a proof of concept for converting existing infrastructure to use Kubernetes. I was able to learn common practices and associated technologies that are being developed to help with deploying applications into a Kubernetes cluster.

Technical Skills:

Kubernetes being such a new technology for both the team and I, we ran into all sorts of issues when trying to migrate from our previous service architecture. The toughest technical challenge that I faced during my internship was trying to get values stored in our AWS Secret Parameters to import into our microservice applications during their start time. I was able to overcome this by researching and testing software created by others in the industry to get values to import as environment variables in a container.

kubernetes   HELM

Personal and professional growth:

Over the duration of my internship I was able to understand what it is like to work on a team. Being supportive of each other and breaking down tasks of a milestone into manageable goals went a long way. For instance, when networking between our different microservices wasn't working the entire team came together in a call to test out different solutions and do research together.

Ethics and Society:

During my internship, I was able to learn more about how Roche is able to make a positive impact on patients' lives. Through delivering diagnostic data Roche is able to help doctors with creating targeted treatments. For instance, Roche's Navify Mutation Profiler which I worked on is able to inform an oncologist by providing a precise, professional report with potential personalized treatment strategies.

Connection to UCSD:

Coursework in my CSE 100 and CSE 15L helped me during my internship. For instance, using git, unix commands, agile methodologies were extremely helpful to me. Continuing into my last year, I'm hoping to bring back what I learned on Kubernetes as well as the soft skills back to UCSD. The experience I've had with working on a team, efficient and thorough research, as well documentation are all skills I hope to continue using not just in my studies but for the rest of my career.