

# Kevin Mok

✉ 647-685-2500  
✉ me@kevin-mok.com

linkedin.com/in/Kev-Mok   
github.com/Kevin-Mok 

## Work Experience

### Red Hat

May 2020 — Aug 2021

#### Cloud/Software Engineer Intern <Kubernetes, GoLang, Jenkins>

- Reduced deployment time by **66%** by [implementing ability](#) to deploy locally-compiled binaries onto **Kubernetes/OpenShift** using only command-line (**Kubernetes/GoLang** used for this and three below).
- Implemented ability for Kubernetes operator to fetch data from a deployed service and update config with data to deprecate reliance on startup script.
- Added startup probes to handle starting legacy application containers that require additional startup time.
- Refactored probes to [have default values](#) assigned based on deployed YAML while also fixing reconciliation issues.
- Rewrote the **Jenkins (Groovy)** [nightly pipeline](#) to run in a GitHub PR using a trigger keyword to test all the team's submitted PR's before merging to the main branch.
- Took initiative to write [file](#) to define the GitHub parameters for the above pipeline so that it can be recreated easily.
- Took initiative to write [documentation](#) on how to get started with the project to onboard new developers and mentored the incoming intern.

## Projects

### Operating Systems Course <>

Jan. 2022

- Wrote and installed a [custom Linux kernel module](#) in **C**.
- Intercepted pre-existing system calls using custom kernel module by sending commands to userspace.
- Monitored specific process ID's in my system call to intercept their system calls.
- Used mutex locks for [thread synchronization](#) in **C**.

### Rarity Surf <Python, Django, React, GraphQL>

Oct 2021

- Web app to give rarity rankings to NFT's and check which are listed on the OpenSea marketplace using their API.
- Reverse engineered the ranking algorithm to match the leading rarity ranking site's rankings ([scraped](#) using Selenium) with a **discrepancy of <0.25%**.
- Used app to frontrun purchases of **top 0.5%** rarity NFT's against competing buyers.
- Wrote **Django (Python)** [backend](#) to fetch metadata from IPFS, store rarity rankings in PostgreSQL and serve rarity data using GraphQL.
- Wrote **React** [frontend](#) with hooks to dynamically load rarity data. Styled with Tailwind.

### AWS Server <AWS, Kubernetes, Terraform, Docker>

May 2024

- Deployed [various web apps](#) using **Docker** (Compose) on an **AWS EC2** Debian/**Linux** server.
- Created **Kubernetes manifest files** to quickly recreate my server setup with persistent storage/restarts and open ports.
- Created **Terraform files** to deploy an AWS EC2 instance and Docker containers.
- Used Amazon Route 53's DNS and **NGINX** to route subdomains to each web application.
- Wrote a **JavaScript** [server script](#) and [systemd service/timer](#) to display the uptime of my pages every hour.

## Skills

**Python, C, PostgreSQL, AWS, Kubernetes, Terraform, Docker (Compose), Jenkins, Groovy, GoLang, Bash, Linux, JavaScript, React, Python, Django, Node.js, MongoDB, Solidity, Git, Command Line**

## Education

### University of Toronto

2018 — 2023

Computer Science Specialist — 3.84 GPA (CS). Graduated with High Distinction.

## References

See my LinkedIn for [references](#) from my Red Hat managers/mentee, a startup client and a graduate student mentor.