

# CHI WAI CHAN

Hong Kong

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## Summary

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Software engineer with 3+ years experience working on cloud technologies such as Juju, OpenStack, Kubernetes, and Observability Stack (Grafana, Prometheus, Loki). Experienced in developing Charms, Snaps, Rocks, and Python packages. Skilled in Go, Python, and JavaScript.

## Experience

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### Canonical

Jan 2024 – Present

*Software Engineer I*

*Hong Kong*

- Enhanced the observability of Charmed Kafka by providing a modern Grafana dashboard, allowing users to monitor the health of a Kafka cluster visually.
- Contributed maintenance feature to MicroStack and MicroCeph, allowing cloud operators to maintain OpenStack nodes and Ceph nodes without the hassle of running through a tedious operation playbook.
- Contributed and created the Validation feature for MicroStack, allowing cloud operators to validate the status of the OpenStack cloud using tempest without the hassle of configuring it.
- Integrated the Validation feature with the Observability feature, allowing cloud operators to check the periodic validation result of the OpenStack cloud from Grafana, and receive alerts about potential issues.

### Canonical

May 2023 – Jan 2024

*Associate DevOps Engineer*

*Hong Kong, China*

- Contributed and created the Observability feature for MicroStack, allowing cloud operators to monitor the status of the OpenStack deployment with Grafana dashboards and alerts.
- Developed a Python based Prometheus Exporter for Hardware Observer Operator (prometheus-hardware-exporter) to provide various collectors for vendor dependent RAID devices.
- Developed the Hardware Observer operator with native integration of the Observability stack (COS Lite), providing modern solution for monitoring hardware resources on bare-metal infrastructure in Juju ecosystem.

### Canonical

May 2022 – May 2023

*Graduate DevOps Engineer*

*Hong Kong, China*

- Unblockd solution QA team's testing pipeline by fixing the critical bugs in graylog and elasticsearch charms.
- Enhanced the quality of charm apt-mirror by introducing unit and functional tests.
- Introduced the clean-up feature to charm apt-mirror that helped pruning unused mirrored files, and reduced disk usage in privately managed production cloud.
- Developed a Snap based Prometheus Exporter (prometheus-juju-backup-all-exporter) for charm juju-backup-all, and integrated the charm with the Canonical Observability Stack Lite (COS Lite).

### Research Center for the Early Universe, University of Tokyo

Aug 2021 – Apr 2022

*Project Researcher*

*Tokyo, Japan*

- Improved GstLAL pipeline's offline dashboard to support on-demand loading of images.
- Developed a static group website and prepared TensorFlow tutorial for new members in the group.
- Helped re-analyze gravitational wave with the latest GstLAL pipeline at the time, and ensured the quality of the pipeline.

### HENNGE

Jul 2021 – Aug 2021

*Software Engineer Intern*

*Tokyo, Japan*

- Contributed a social media web application using Python (Flask framework).
- Implemented authentication and login system with Google OAuth 2.0 and Redis.
- Implemented text and image storage system using Redis and MinIO.
- Employed micro-services architecture and deployed the web application using Docker, AWS, and Terraform.

# Education

|   |   |
|---|---|
| <b>The University of Tokyo</b><br><i>Master of Science in Physics</i>   | <b>Sep 2018 – Sep 2020</b><br><i>Tokyo, Japan</i> |
| <ul style="list-style-type: none"><li>• Overall grade A in course work performance</li><li>• Teaching Assistant in Gravitational Wave Physics</li><li>• Submitted a technical paper to arXiv (arXiv:2009.03025)</li></ul> |   |
| <b>The Hong Kong University of Science and Technology</b><br><i>Bachelor of Science in Physics</i>  | <b>Sep 2014 – Sep 2018</b><br><i>Hong Kong</i>    |
| <ul style="list-style-type: none"><li>• Dean's List 2015 - 2017</li><li>• HKUST Robust team (Smart Car team 2016 - 2017)</li><li>• Graduated with First Honor Class (GPA 3.7/4.3)</li></ul>                               |   |

# Technical Skills

|              |             |           |              |         |              |
|--------------|-------------|-----------|--------------|---------|--------------|
| • Docker     | • Terraform | • LXD     | • Prometheus | • Linux | • Python     |
| • Kubernetes | • Juju      | • Snap    | • Loki       | • CI/CD | • Go         |
| • OpenStack  | • ROCK      | • Grafana | • Git        | • Scrum | • JavaScript |

# Certifications

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|---|---|
| <b>Certified Kubernetes Application Developer</b><br>The Linux Foundation       | <b>Nov 2024 - Nov 2026</b><br>LF-8023d8bwns   |
| <b>Linux Foundation Certified Systems Administrator</b><br>The Linux Foundation | <b>June 2025 - June 2027</b><br>LF-ehjghdyant |

# Achievements

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|---|------|
| <b>Masanori Nagashima Scholarship</b>   | 2019 |
| <b>Dr Sampson Sun Scholarship Fund</b>  | 2018 |
| <b>Third place winner at 12th NXP Cup Intelligent Car Racing Competition (South China Region)</b> | 2017 |

# Languages

|             |           |            |                       |
|-------------|-----------|------------|-----------------------|
| • Cantonese | • English | • Mandarin | • Japanese (N2 level) |
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