

# Lewis Cheung

## Full Stack Developer

**Location**    Toronto, Ontario

**LinkedIn**

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**GitHub**

<https://github.com/HoiPangCHEUNG>

**Demo Project**

<https://hoipangcheung.github.io/TTC-Next>

*(eligible to work in Canada)*

## Work History

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### Full Stack Developer | ( 11/2020 - 09/2022 ) | *South China Morning Post*

Experienced in full stack development with a track record of success in building collaborative editing solutions using Agile Scrum methodology. Skilled in Node.js, Vue.js, and React.js. Demonstrated expertise in cooperating with cross-functional teams, optimizing system performance, and mentoring junior developers. Proven ability to migrate to new technologies, reduce costs, and improve development speed.

#### - Key Contributions

- Independently implemented LiveBlog feature enabling editors from different countries to work on ongoing topics simultaneously without duplicating work.
  - Sample article built on this feature:  
<https://www.scmp.com/sport/rugby/hk-sevens/article/3198601/hong-kong-sevens-2022-live-coverage-day-3-quarter-finals-get-under-way>
- Boosted development speed by 50% by adopting CompositionAPI and migrating from Vue2 to Vue3.
- Replaced Drupal dev & support team to **save 760k USD annually**.

#### - Duties

- Designed and developed an **Event-sourced** backend using **CQRS** architecture, ensuring high availability, scalability, fault tolerance and instant replay of previous edits.
- Established and managed **RabbitMQ** to publish/subscribe updates for effective communication between asynchronous systems.
- Revamped workflow of **WebSocket** to tackle race conditions.
- Teamed on **user-centric design strategy** in translation of **UI/UX** and business requirements into coded solutions.
- **Reviewed codes** from other peers and offered technical advice or solution.
- Investigated unusual CPU spikes in **Kubernetes** cluster to prevent unexpected downtime of applications.
- **Integrated and maintained** third-party services such as Google, Youtube, and Twitter.
- Built **automated test suite** and script for **CI/CD**.
- Optimized performance of service & database components.
- Participated in user story analysis, solution design, and task allocation among teams.
- Guided and mentored junior developers to keep codes maintainable and easy to understand.

#### - Tech Stacks

- Backend: Node.js with Express, MongoDB, RabbitMQ, Event sourcing, CQRS
- Frontend: Javascript with Vue.js & React.js, Typescript, Material UI, HTML5, CSS, Vuetify
- Testing: Python with Pytest, Javascript with Jest, Sinon
- General: Docker, Kubernetes, CI/CD, Restful API, GraphQL, Git, GitLab, GitHub, Jira, AWS(EC2, S3), Socket.io, WebSocket, rate-limiting, Microservice, JWT, Web development, npm, Responsive, Babel, Webpack, OpenAPI (Swagger), Postman, VSCode, non-relational databases (NoSQL), Google Analytics

## Software Developer | ( 01/2019 - 10/2020 ) | *Prisec Limited*

Expertise in building efficient and scalable backend systems, designing and developing APIs, and implementing automated testing processes. Skilled in containerization, microservices architecture, and data processing with Python. Strong collaborator and team player with a focus on delivering high-quality, data-driven solutions.

#### - Key Contributions

- Designed and built an authenticator on top of **OIDC** protocol for hassle-free registration and login, while maintaining user anonymity.
- Implemented a highly efficient **Python WebCrawler** capable of automatically fetching and filtering **millions of rows of targeted data** daily, allowing for easy analysis and processing.

#### - Duties

- Developed and maintained automated test suite for any proposed feature changes, ensuring high-quality code and minimal bugs.
- Designed and implemented a scalable and robust **gRPC** API for mobile applications, providing fast and efficient authentication and authorization.
- **Containerized** applications using **Docker** and **Kubernetes**, streamlining development and deployment processes.
- Collaborated on code restructuring to adopt the **microservice** architecture, enhancing system flexibility and scalability.
- Created and optimized a **Python WebCrawler** capable of retrieving and processing large volumes of online data for analysis, contributing to data-driven decision-making.

#### - Tech Stacks

- Backend: Golang with gRpc, GORM, MySQL, Python with Django, Redis
- Frontend: Flutter, Dart
- Testing: Python with Pytest, Selenium
- General: Redis, Docker, Kubernetes, CI/CD, Restful API, GraphQL, Git, GitLab, GitHub, Kanban, Test-driven-development, Micro service, DevOps, relational databases (SQL), Linux, Ubuntu, Single Sign-On(SSO), OAuth2.0

## Education

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### Bachelor of Engineering in Information Engineering ( Class of 2019 )

*The Chinese University of Hong Kong*