# **Lewis Cheung**

## Full Stack Developer

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Portfolio <a href="https://hpc-portfolio.vercel.app/">https://hpc-portfolio.vercel.app/</a> Contact

**Demo Prj** https://ttc-next-v2.vercel.app/

(eligible to work in Canada without sponsorship)

## Work History

### Software Engineer | (5/2023 - 12/2023) | LassoMD | Toronto

Built a comprehensive solution from scratch to elevate dental practice's patient acquisition and lead management. Seamlessly integrating marketing ROI analytics, lead flow tracking, online reviews, and real-time appointment scheduling.

#### - Key Contributions

- Integrated Twilio to handle Calling & Messaging service
- Built an internal dashboard from scratch for analyzing SEO performance & Core Web Vitals
- Integrated Typesense Search Engine for fast and accurate data retrieval

#### - Duties

- Worked closely with the client success team and sales team to understand the pain point of the current market and how we could address the issue.
- Pushed changes and releases weekly and requested comments to ensure the product is on the right track from the view of stakeholders.
- Designed data models and pipelines to ensure a reasonable data flow without compromising performance
- Integrated PubSub to break large applications into smaller but more maintainable services
- Maintained environment and deployed applications to Cloud Run with TerraForm
- Wrote Pact test to prevent unexpected changes that will break existing features.

#### - Tech Stacks

- Backend: Python with FastAPI
- Frontend: React with Typescript, Tailwind, Radix
- Testing: Pact Test, Jest, Pytest
- General & Infrastructure: Next13, Vercel, Docker, PubSub, Terraform, GCP, Postgresql, StoryBook, Graphite, highlight.io, Github, Loom, Confluence & Jira

## Full Stack Developer | ( 11/2020 - 09/2022 ) | SCMP

- Key Contributions
  - Developed a rich text editor for internal users to draft articles in async mode, which supports various text formatting, image sourcing, and link embedding.
  - Independently implemented LiveBlog feature enabling editors from different countries to work on ongoing topics simultaneously without duplicating work.
    - o Sample article built on this feature
  - Replaced Drupal with our solution to save 50% on expenses 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 the 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 solutions.
- 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.

#### - 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, Vuex, Redux, 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

#### - 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 easy analysis and processing.
- Developed and maintained automated test suite for any proposed feature changes, ensuring high-quality code and minimal bugs.

#### - Tech Stacks

- Backend: Golang with gRpc, GORM, MySQL, Python with Flask, 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

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