LEE, Kwok Lam

Computer Science Undergraduate
github.com/LemuelKL

lemuellee.kl@gmail.com
+852-62382237
linkedin.com/in/lemuelkl/

Education

- **The University of Hong Kong** — Hong Kong
  Bachelor of Engineering in Computer Science — *Sep 2020 - Jun 2024*

- **Shatin Pui Ying College** — Hong Kong
  Secondary Education; 1st in ICT, 3rd in Physics — *Sep 2013 - Jun 2020*

Skills Summary

- **Languages**: Python, C/C++, C#, JavaScript, TypeScript, JAVA, Haskell, SQL, PHP, LaTeX, KaTeX
- **Frameworks & Libraries**: NodeJS, Flask, VueJS, SvelteKit, Quasar, TailwindCSS, Qt, Unity, TensorFlow, PyTorch, OpenCV
- **Platforms & Tools**: Linux, Bash, MySQL, MongoDB, Supabase, Docker, Git, Adruino, mBot, GitHub

Experience

- **Shatin Pui Ying College** — Hong Kong

  Question Writer & Programmer (Freelance) — *Jul 2022 - Aug 2022 & Mar 2021 - Aug 2021*
  - Authored MCQ templates in JavaScript & KaTeX for school's e-learning web app *WinMaths*.
  - Templates are based on the 2022 HKDSE Mathematics and the HKDSE Physics syllabus.

  Full Stack Engineer (Freelance) — *Jun 2022 - Aug 2022*
  - **Musical E-ticketing System**: Semi-automated order management, seat arrangement, mission control, and bulk mail.
  - **Administrative Web Apps**: Developed for exam, lesson, and HKDSE invigilation timetable scheduling.

- **The University of Hong Kong** — Hong Kong

  Student Teaching Assistant - ENGG1340 Computer Programming II — *Jan 2022 - Jun 2022*

  Student Teaching Assistant - ENGG1330 Computer Programming I — *Sep 2021 - Dec 2021*
  - **ENGG1340**: Tutored a class of 85 on advanced Python programming, Linux shell commands, shell scripts, C/C++ programming, and separate compilation techniques.
  - **ENGG1330**: Tutored a class of 45 on Python programming, searching and sorting algorithms.
  - **Coursework Feedback**: Reviewed assignments according to a marking scheme and gave individual **video** feedback.
  - **Ed & Moodle**: Guided discussions on learning materials.

Projects

- **Enoch BRC - a reading challenge for the Bible (Fullstack, PWA, Static Site)**:

  A minimalistic Progressive Web App tailored made for a church. Readers read 8 chapters weekly to finish all 1189. Includes leader-board and progress tracker. (Oct 2022)

- **CMM - algorithmic cryptocurrency trading (API, Cloud Computing, Data Science)**:

  Back-testing suite for ALGOGENE's Algo Crypto Trading Challenge 2022. Market pattern detection and alert via web-hook. Involves APIs of Trading View, Alpaca, Google Cloud, and Discord. (In progress and jointly developed)

- **WinMaths - SPYC's e-learning platform (Functional Programming, Code Generation, Typesetting)**:

  Generates random Mathematics and Physics MCQs based on templates written in JavaScript & HTML & KaTeX. Researching to export existing templates (≈2000) into MS Word format. (In progress and jointly developed)

- **HackOS - offensive cyber-security simulator game (Unity, Cyber-security)**:

  Participating project of the 6th InnoShow held by the Faculty of Engineering, The University of Hong Kong. Sandbox experience with pruned replicas of nmap, ssh, hydra, and an array of unix-like commands. (May 2022)

- **RNA Fighter - terminal-based puzzle-solving game**:

  Terminal game with colored text user-interface. Player race to enter mirrored RNA sequences to defuse viruses. Implemented text-based dialogues, scroll view, page navigation, and in-place buffer update. Built with Ncurses and C++. (May 2021)

- **Duckietown Tesla - COMP3414 coursework (Computer Vision, Reinforced Learning, Self-driving)**:

  Built for Duckietown using (modified) Deep Deterministic Policy Gradient with Actor & Critic networks. (Dec 2020)

- **Bubble Sheet OMR - GUI program for image-based MCQ options recognition (E-learning, OMR)**:

  Simple GUI program written in Qt to detect MCQ options given a bubble sheet pdf. Coordinates can be exported for automatic marking purpose. Supports fully automatic detection, and fine manual adjustments. Multi-threaded. (Jun 2019)

- **Real-time Room Status System - school-wide room status monitoring system (LAMP, RFID)**:

  Developed and used for STEM Camp 2018 & 2019 at Shatin Pui Ying College. Students from 16 primary schools could view booth/room statuses on iPads, and check in & out by tapping RFID cards. (Apr 2019)

- **SLMS - school library management system (SQLite, GUI)**:

  Developed with Qt and SQLite, a GUI program that provides CRUD functionalities to common library administration, such as book categorization, borrow/return management, mass book record import, barcode scanning, and overdue alert. Object-oriented and separatedly compiled. (May 2019)

- **Contact List Manager - terminal-based contact list manager**:

  Simple terminal application with colored text user-interface. Provides CRUD functionalities to manage contacts with multiple fields. Uses simple hashing algorithms for authentication. Built with Windows API and C++. (May 2018)

Activities

- **J.P.Morgan Code for Goode 2022 Challenge (Hong Kong)**:

  Developed for Junior Achievement Hong Kong, a job shadowing web app for secondary school students.

- **Cathay Pacific Hackathons 2021 - Cathay Pacific**:

  Developed a React Native app to display a summary of COVID19 travel restrictions by tapping an origin & destination on a world map.

- **Orientation Workshop @ CUEE 2019 - The Chinese University of Hong Kong**:

  Built an image-based object recognition Android app for transportation tools with Deep Learning.

- **STEM Camp 2019 - Shatin Pui Ying College**:

  Appointed the Head of STEM Committee, organized a STEM day camp for visiting students from 16 primary schools.

- **EE International Summer Camp 2017 - City University of Hong Kong**:

  Developed an Adruino robotic car and Android app for remote control via Bluetooth LE. 2nd runner-up in the camp's concluding Mini Robotic Car Competition.