Li-Wei **Yap**

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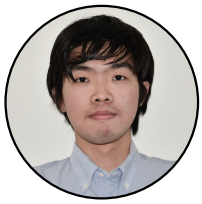

Experience

Hearing Diagnostics Ltd, Edinburgh | Software Engineer *03/2020 - present*

- Developed mobile app for controlling remote audio device in Java and C++ using Android NDK, `libssh`, and Gradle.
- Developed parts of the real-time C++17 codebase, Qt front end, and CMake build scripts for quaternion detection and audio synthesis.
- Package management in Python and version control with Git on Linux OS.
- My work was showcased in demos that won the start-up big clients (e.g. *Boots*) and £715,000 in funding from angel investors.

IntiQuan GmbH, Basel | Programmer & Data Analyst *07/2018 - 09/2018*

- Developed script-based workflow in R for statistical analysis and data simulation to evaluate drug effectiveness.

Projects

Narradir | Android

- Developed mobile app in Java for automating narration in board games such as *Avalon* with the *ExoPlayer* library.
- Synthesized speech audio files with Text-to-Speech API from Google Cloud SDK in Bash. Automated UI testing with *Espresso*.

Text-Popover | Mac OS

- Developed desktop menu bar app in SwiftUI framework. The app pops up at user-specified intervals with user-specified texts, such as inspirational quotes or idioms.
- Scraped German idioms off Wikipedia using Python library *Beautiful Soup*, storing data in SQL database.

XKCD Browser | Android

- Developed mobile app in Java to browse XKCD comic strips. The JSON data of every strip is retrieved from the XKCD website using the *Volley* library.

Personal Website | Front End

- Developed personal website using HTML/CSS/JavaScript and the Jekyll framework.

Conway's Game of Life | C++, Qt

- Implemented Conway's Game of Life using C++, with the UI written with Qt.

Education

ETH Zürich | M.Sc. Computational Biology and Bioinformatics | GPA: 5.43 / 6.0 *09/2016 – 08/2019*

- Foci: machine learning; data structures & algorithms; parallel programming; numerical methods.
- Thesis: Developed C++ library for statistical inference on biological mixed-effects models. Achieved two-fold improvement in convergence rate of statistical inference.

Imperial College London | B.Sc. Biotechnology | Grade: First Class Honours *09/2013 – 06/2016*

- Awarded Dean's List, C Ewart Stickings Memorial Prize, and Wiley Prize for academic excellence.
- Thesis: Developed Matlab ODE model of cell-wall dynamics during bacterial sporulation.

Skills and Interests

Programming	C++ • Java • Python • Swift • Bash • R • SQL • HTML • CSS • JavaScript • Matlab • LaTeX
Frameworks & Tools	Git • CMake • Android Studio • Gradle • SwiftUI • Qt • Jekyll • MPI • Espresso
Data Analytics	Scikit-Learn • Pandas • NumPy
Operating Systems	Linux • Mac OS • Windows
Graphic Design	Inkscape • Gimp
Languages	English (native) • German (Goethe-Zertifikat C1) • Mandarin (good)
Hobbies	social-deduction board games • comedy series • football • acoustic guitar

Selected Publication

[1] **Yap L.-W.** & Endres R.G. (2017) A model of cell-wall dynamics during sporulation in *Bacillus subtilis*. Soft Matter. 13(44), 8089-8095.