## Ryan Lai

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#### **PROFILE**

A highly adaptable junior software engineer, with a strong passion for writing quality code and continual learning. For a more in-depth look into who I am or to view all my past/ongoing projects, here is my personal website.

#### **EDUCATION**

Dec 2022 — Apr 2023

#### Makers Academy, Software Engineering Bootcamp

London

React, NodeJS, MongoDB, Ruby, PostgreSQL, CSS, Git, Linux

- Achieved 97% code coverage on a web game with unit, integration and E2E testing (Jest, Cypress, RSpec)
- Developed a social media app and an property booking app in project teams using test-driven development
- Lead development team by utilising agile workflows, conducting code reviews, and organising scrum sprints
- Engaged in regular **pair programming** sessions, averaging 4-5 times a week for a minimum of 3 hours each, to tackle debugging & developmental challenges
- Designed the **sketch, wireframe and mock-up** of a Japanese language learning game, including the storage and management of the game data utilizing MongoDB
- Maximised project workflow by using Git for code management, branching, and merging- ensuring a streamlined development workflow within teams of 5-6 people

Sep 2019 — Sep 2022

# Bachelor of Science in Physics, University College London

London

Python (SciPy, Matplotlib, Numpy)

Graduated with Second Class Honours (2:1).

- Achieved 2nd place out of 35 groups for best experimental report and group presentation for a research project involving "Hybrid organic-inorganic materials". Responsible for group organisation and communications, along with the data processing and modelling of the experimental data using Python.
- Created user-defined python programs to compare and evaluate experimental data to hypothesized models in a 12-week experiment investigating 'Compton scattering on gamma-rays'.
- 3. **Performed statistical data analysis** which involved tasks such as generating data visualizations, computational treatment of large data sets, and creating 3-dimensional models and animations of physical systems.
- Wrote article on "The future of manned space travel". Conducted credible research and applied standard referencing practices.

Sep 2017 — Jul 2019

### Higher Education, Alice Smith International School

Kuala Lumpur

Advanced Levels - 2 A\*s in Mathematics, Physics & 2 As in Further Mathematics, Chemistry

GCSEs - 8 A\*s & 3 As, including an A\* in Computer Science, Mathematics, and the 3 Sciences

#### EXPERIENCE

Jun 2022 — Aug 2022

## Assistant in Website Development, Wahine Capital

Kuala Lumpur

- Collaborated in the progression of the company's prototype web pages by regularly brainstorming and presenting developmental blueprints to the company's founder
- Provided & presented creative solutions to bottleneck problems accelerating project development by weeks
- Designed the wireframe, flow-diagrams and UI of the company's website
- Utilised Procreate and Photoshop to create layouts for the design and branding of the company
- · Devised social media marketing strategies and proposed UX modifications to improve SEO

Jul 2019 - Present

### Portfolio Projects

Name	Description	Tools/Technologies
<u>Japanese RPG Game</u> - 日本語遊	A language learning game that	React, NodeJS, MongoDB, Jest,
び	incorporates story-driven	Express, JSON Web Tokens,
	gameplay & a coin system, while	Cypress, TailwindCSS, Redux
	tracking learning progress and	Toolkit
	achievements.	
Instant Messaging Application -	An app which has real-time chat	React, NodeJS, MongoDB, Web
ChatterBox	pages, online indicators, upload	Socket APIs, Mongoose, Express,
		TailwindCSS

	and attachment functionalities, auto-scrolling and others.	
<u>File Sharing Site</u> - FilesToGo	NextJS site that allows users to upload files & create download	TypeScript, NextJS, Brevo API, Multer (NodeJS Middleware),
	pages to share images/music through link sharing and emailing.	Express, Cloud-based Media Management (Cloudinary)
Music Licensing Website - BeatHive	Website with features such as user authentication, beat uploading and editing, and a shopping cart and checkout process for purchasing beats.	NodeJS, React, JSON Web Tokens, Bcrypt Password Hashing, MongoDB, Material-UI
Personal Website v2	My website used to showcase my experience, skills, and side-projects.	NextJS, Framer Motion, CSS, HTML, JavaScript
Investments Tracker	Financial tool used to help users make informed decisions by creating real-time graphical visualizations based on investments' performance.	React, Stock APIs, Chart.js

To view other projects that are not listed in the table (source code/deployment links), click here.

May 2019 - Dec 2021

## Freelance Digital Artist

- Sold 5+ custom art commissions to clients through online networking
- · Delivered high-quality digital art services for projects such as self-portraits, fanart or fantasy landscaping
- Closely collaborated with other artists, composing artwork using Procreate

#### TECHNICAL SKILLS

## **Programming Skills**

Languages: JavaScript, Python, Ruby, TypeScript

Testing: Jest, Cypress, RSpec

Frameworks/Libraries: React, NodeJS, ExpressJS, NextJS, TailwindCSS

Databases: MongoDB, PostgreSQL

#### CHARITY & VOLUNTEERING WORK

May 2019 — Jul 2019

### Construction Work in Krabi

Krabi, Thailand

With a group of 20 other volunteers, we built essential facilities (bathrooms, piping) for a local village community in Krabi. Day-to-day responsibilities included mixing cement, laying structural foundations, wheelbarrowing material, and more.

Jan 2020 — Apr 2020

## Fund Raising for Breast Cancer Research

United Kingdom

Raised £1.2k for the organisation Breast Cancer Now through full-day bucket collections in Birmingham & Central London, internet fundraising, and donation-based crowdfunding through social media marketing campaigns and mutual connections.