# Ryan Lai

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## PROFILE

Junior software developer, with a 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.

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## 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 Japanese language learning game by writing extensive **unit, integration and E2E** tests (Jest, Cypress, RSpec)
- Lead development team by utilising **agile workflows**, conducting **code reviews**, and organising **scrum sprints**
- 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 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).

1. Achieved **2nd place out of 40 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.**

2. 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.

**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 - 9 **A\*s & 2 As**, including an A\* in Computer Science, Mathematics, and the 3 Sciences

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## 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
- Designed the wireframe, flow-diagrams and UI of the company's website
- Utilised Procreate to create layouts for the design and branding of the company

**Jul 2019 — Present**

### Portfolio Projects

| Name | Description | Tools/Technologies |
|---|---|---|
| Japanese RPG Game - 日本語遊び | A language learning game that incorporates story-driven gameplay & a coin system, while tracking learning progress and achievements. | React, NodeJS, MongoDB, Jest, Express, JSON Web Tokens, Cypress, TailwindCSS, Redux Toolkit |
| Instant Messaging Application - ChatterBox | An app which has real-time chat pages, online indicators, upload and attachment functionalities, auto-scrolling and others. | React, NodeJS, MongoDB, Web Socket APIs, Mongoose, Express, TailwindCSS |
| File Sharing Site - FilesToGo | NextJS site that allows users to upload files & create download pages to share images/music through link sharing and emailing. | TypeScript, NextJS, Brevo API, Multer (NodeJS Middleware), 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.**

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|---|---|
| May 2019 – Dec 2021 | **Freelance Digital Artist** |

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

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**TECHNICAL SKILLS**      **Programming Skills**

Languages: JavaScript, Python, TypeScript, PHP, Ruby

Testing: Jest, Cypress, RSpec

Frameworks/Libraries: React, Django, NodeJS, SilverStripe

Databases: PostgreSQL, MongoDB, MySQL

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**CHARITY & VOLUNTEERING WORK**

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| 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.

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|---|---|---|
| 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.

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