

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](#).

EDUCATION

Dec 2022 — Apr 2023

Makers Academy, Software Engineering Course

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 - **3 A*s in Mathematics, Further Mathematics, Physics & 1 A in Chemistry**

GCSEs - **9 A*s & 2 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
- 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](#).

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**

TECHNICAL SKILLS

Programming Skills

Languages: JavaScript, Python, TypeScript, PHP, Ruby

Testing: Jest, Cypress, RSpec

Frameworks/Libraries: React, Django, NodeJS, SilverStripe

Databases: PostgreSQL, MongoDB, MySQL

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.