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).

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.**

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 on** involving tasks such as generating data visualizations, computational treatment of large data sets, and creating 3-dimensional models and animations of physical systems.

4. **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

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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 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

Side-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	React, NodeJS, MongoDB, Web Socket APIs, Mongoose, Express, TailwindCSS

	and attachment functionalities, auto-scrolling and others.	
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 (Under Development)	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+ personalised art commissions** to clients through my Instagram art account (1.3k followers)
- 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.