

Loh Jian Rong

lohjianrong7@gmail.com |  | github.com/jianrong7 | [linkedin.com/in/jianrong7](https://www.linkedin.com/in/jianrong7) | <https://jianrong.dev>

Year 2 CS Student with domain knowledge in real estate and sustainable finance.

EDUCATION

BSc in Computing, Computer Science

Expected Graduation Year 2025

National University of Singapore, Singapore

- GPA: 4.93 / 5.00 (First Class Honours)
- NUS Merit Scholarship Recipient – Highly coveted scholarship awarded to high calibre individuals
- Relevant Coursework: Object-Oriented Programming (A+), Data Structures and Algorithms (A)

WORK EXPERIENCE

London Stock Exchange Group, Singapore | Software Engineer Intern

May 2023 – Present

Full-stack development for the Sustainable Finance Innovation (SFI) team

- SFI is part of LSEG Labs, delivering fintech solutions to enable businesses to track carbon emissions
- Architected a full-stack Dynamic Form Builder from scratch, constructing a form data schema in human-readable JSON and a single-table design for DynamoDB, improving load times by up to 50%
- Built serverless backend API using modern Python, FastAPI and Mangum, which is deployed on AWS Lambda
- Set up AWS cloud architecture, including S3, Lambda, and DynamoDB using Terraform
- Developed reusable React components in TypeScript for company's component library, improving developer productivity

Source Academy, Singapore | Software Engineer Intern

Jan 2023 – Apr 2023

Added a new variation of the Source language to enable parallel processing using the GPU

- Source Academy is an open-source platform used to teach NUS undergraduates foundational programming concepts
- Utilised the Explicit-Control Evaluator such that run-time information could be used just prior to execution
- Integrated the latest WebGPU standard into Source to parallelize audio processing using the GPU, resulting in performance improvements by up to 20 times

Google Developer Student Club NUS, Singapore | Software Engineer

Aug 2022 – May 2023

Full-stack development in a team of 9 to develop stakeholder management solutions for Diabetes Singapore

- Implemented site-wide authorization features using React, Express, TypeScript, and PostgreSQL

99 Group, Singapore | Software Engineer Intern

Jan 2022 – Dec 2022

Frontend development on the SEO demand team for the consumer-facing 99.co property marketplace

- 99 Group is a Series C online real estate startup operating in Southeast Asia
- Created a [reusable React Hook](#) from scratch to convert legacy adaptive components to a modern responsive web layout
- Initiated implementation of an automated process to ensure pull requests follow company's convention, resulting in cleaner commits, boosting developers' productivity by 10% (GitHub Actions)
- Eliminated Mobile Usability and Core Web Vitals issues, from 1,500 to 0 and from 10,400 to 0 respectively
- Wrote automated Python and Bash scripts to convert all images to modern WebP format, reducing file sizes by 56%

PROJECTS

API Gateway in Golang | [GitHub Repository](#)

May 2023 - Present

API Gateway which translates HTTP requests encoded in JSON format to Thrift binary format requests

- Built a HTTP API Gateway and RPC servers using ByteDance's Hertz and Kitex frameworks, allowing for communication using Thrift binary, resulting in performance improvements by up to 20%
- Set up cloud infrastructure for project using Terraform, with automated GitHub Actions to build, test, and deploy
- Maintained a service registry using HashiCorp's [Consul](#) as a single source of truth to manage RPC servers

Gossip With Go | [GitHub Repository](#)

Dec 2022

Full-stack web forum built with React, TypeScript, Golang, Gin, and PostgreSQL

- Features include rich text editors, image uploading, and usage of OpenAI's GPT AI model to generate content
- Hosted frontend build files from Docker image on AWS S3 bucket, which is served through AWS CloudFront
- Deployed backend's Docker image on an AWS EC2 instance

DriveSG | [GitHub Repository](#)

Aug 2021

Mobile quiz application built with React Native and Firebase for drivers-to-be to ace theory tests

- Extracted text from over 800 images using Optical Character Recognition to create JSON data for questions

SKILLS

Languages: JavaScript, TypeScript, Python, Golang, Java

Frameworks: React (Next.js), Express.js, React Native, Gin, Django, FastAPI, Hertz, Kitex

Others: Git, Unix, Docker, AWS, GCP, Postman, SQL (PostgreSQL), NoSQL, Terraform, Consul