

# Weilue Luo

☎ (+44) 07543295595 | ✉ luoweilue@gmail.com | 💻 weilueluo | 🌐 will.dev

## Education

**University College London** COMPUTER SCIENCE (DISTINCTION - AVG. 85%) *London, UK Sep. 2021 - Sep. 2022*

- **Relevant Modules** Networked Systems, Machine Learning for Visual Computing, Image Processing, Machine Vision, Computer Graphics, Perception and Interface, Robot Vision and Navigation, and Virtual Environment.

**University of Manchester** COMPUTER SCIENCE (DISTINCTION - AVG. 83%) *Manchester, UK Sep. 2018 - Sep. 2021*

- **Relevant Modules** Mathematics, Operating System, Algorithms and Complexity, Databases, Logic and Modelling, Software Engineering, Imperative Programming, Object-oriented Programming, Machine Learning and Optimization, AI and Games, Computer Vision, Graphics and Image Processing, Distributed Computing, Mobile System, and Cryptography.

**Bellerbys College** COMPUTING (1<sup>ST</sup> IN COHORT - AVG. 84%) *Brighton, UK Jan. 2018 - Jun. 2018*

- **Relevant Modules** Decision & Pure Maths, Databases, Programming & Code, Web Design, and System Analysis.

## Experience

**Microsoft** SOFTWARE ENGINEER IC3 - C# *Nov. 2024 - Current*

- Aria/Reflex Control Plane team.

**Cisco** SOFTWARE ENGINEER - JAVA & GO & TYPESCRIPT *Oct. 2022 - Sep. 2024*

- Integrated external services and applications in cloud environments (AWS and Azure), reducing manual steps by up to 60%.
- Worked with teams to move authentication and authorization services from self-hosted to cloud-managed databases, ensuring a smooth transition.
- Led the development of AWS Terraform plugins for Cisco Cloud, gaining hundreds of users in the initial release.
- Designed and implemented external platforms, developing key public APIs, attracting hundreds of thousands of requests during beta release. Link: (Cisco Defense Orchestrator Documentation).
- Developed an easy-to-use internal rate limit library, used by several internal applications.

**Amazon** SOFTWARE ENGINEER INTERNSHIP - JAVA *Jun. 2021 - Sep. 2021*

- Built and embedded an experiment framework into the existing question-answering pipeline. Conducted experiments with 1% customer traffic, and presented a highly-rated proof-of-concept report.
- Developed an efficient workflow for future experiments, and reduced experiment deployment time needed from days to hours.
- Received full-time offer (Organization wide layoff).

**Amazon** SOFTWARE ENGINEER INTERNSHIP - JAVA *Jun. 2020 - Sep. 2020*

- Developed procedures that aggregate ≈3 billion item records into concise datasets daily using tools based on Spark.
- Reduced time-consuming ad-hoc graph analysis from minutes to seconds by developing an effective modern visualization dashboard using Elastic Search and Kibana.
- Developed an API package for automating the creation of visualization components and dashboards.
- Received full-time offer.

## Events

**University of Manchester** SOFTWARE ENGINEER MENTOR *Oct. 2022 - Nov. 2022*

- Mentored a group of 8 second year undergraduate students as they contribute to a open source project. Received positive feedback.

**NoGhost** DATA RESEARCHER - PYTHON *Jun. 2022 - Sep. 2022*

- Built multi-processing data pipeline, improved and implemented state-of-the-art machine learning papers.
- Part of Master's degree project at UCL, condensed a thesis received distinction grade, rated by engineers and professors from UCL.

**Java Community Process** ASSOCIATE MEMBER *Mar. 2023 - Current*

- Participate as a Contributor to JSR and enhance Java knowledge.

## Selected Projects

**Personal Website** HTML/CSS, TYPESCRIPT, AND GLSL *Sep. 2021 - Present*

- Implemented features: (1) RSS feed backed by CORS proxy server deployed with AWS Lambda. (2) Automated integration using Github Actions. (3) Integrate external Anime API and built search and details page. (4) 3D landing page built with ThreeJs and custom shaders. (5) Modern, responsive, mobile-friendly CSS. (6) Search engine optimization.
- link: <https://will.dev>
- Project can be found at <https://github.com/weilueluo/personal-site>.

**Collaborate Live** HTML/CSS, AND JAVASCRIPT *Jan. 2019 - Mar. 2019*

- Led 7 students to build a web application for a code-based interview. Features include real-time coding, drawing, compilation and terminal.
- Awarded 1<sup>st</sup> place in most appealing idea and highest technical quality prize (2/4 prizes) out of 37 teams.

## Local Nameserver PYTHON

Feb. 2022 - Mar. 2022

- Written a local nameserver that able to resolve any IPv4 address according to RFC 1034 and RFC 1035 specification.

## Poisson Image Editing SOLE DEVELOPER - PYTHON

Dec. 2021 - Jan. 2022

- Implemented the Poisson Image Editing paper. Including techniques such as naive filling; import & mixing gradient; texture flattening, colour isolation & illumination. The project can be found at <https://github.com/Redcxx/poisson-image-editing>.

## MP3 Music Player & Flight Management System JAVA

Mar. 2019 - Jun. 2019

- A MP3 player with GUI and custom database, supports functionalities such as play, pause, restart, and upload custom songs.
- A flight management system with GUI and custom database, supports functionalities such as booking, reschedule, cancel and swap flights.
- One of three students who managed to complete this coursework over past 5 years.

## Skills

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**Programming** (>10k lines) Java,Go,Typescript/Javascript,Python,HTML/CSS(>2k lines) Matlab,C,GLSL.

**Tech Stack** Spring,GraphQL,OpenAPI,NodeJs,Jenkins,Angular, ReactJs,ThreeJs,NextJs,SASS/SCSS,.

**Environments** Git,CR,CI/CD,AWS,Terraform,Scrum,Agile,Markdown,Linux/Windows,LaTeX.

**Language** (Native) Chinese and Cantonese;(Fluent) English;(New) Japanese