

# Weilue Luo

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## 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

**Cisco** SOFTWARE ENGINEER - JAVA & GO *Oct. 2022 - Current*

- Enhanced network security policy management across Cisco's distributed devices, optimizing operations in complex cloud environments.
- Integrated services in cloud-native environments like AWS and Azure, streamlining functionality, performance, and reducing manual steps.
- Led the migration of authentication and authorization services from self-deployed to cloud-managed solution, ensuring seamless transitions.
- Drove the development of external platforms, spearheading the design and implementation of multiple AWS Terraform plugin providers from inception. Examples: Terraform Provider for Cisco Defense Orchestrator (<https://github.com/CiscoDevNet/terraform-provider-cdo>) and AWS Terraform Provider for Secure Device Connector (<https://github.com/CiscoDevNet/terraform-aws-cdo-sdc>).

**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.

**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

**Second-hand Trading Platform** HTML/CSS, TYPESCRIPT, JAVA *Jun. 2023 - Present*

- Early stage of a web application using Angular and Spring Boot.
- Implemented Github OAuth2 login and Google OneTap login flow.

**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://wll.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) 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