

# Weilue Luo

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## Education

### University College London

COMPUTER SCIENCE (DISTINCTION - AVG. 85%)

London, UK

Sep. 2021 - Sep. 2022

### University of Manchester

COMPUTER SCIENCE (DISTINCTION - AVG. 83%)

Manchester, UK

Sep. 2018 - Sep. 2021

### Bellerbys College

FOUNDATION - COMPUTING (1<sup>ST</sup> IN COHORT - AVG. 84%)

Brighton, UK

Jan. 2018 - Jun. 2018

## Skills

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

**Tech Stack** Map Reduce, Spark, ReactJs, ThreeJs, NextJs, SASS/SCSS, SQL, Pytorch, Numpy, Matplotlib, NodeJs, Jenkins.

**Environment** Git, CR, CI/CD, AWS, Scrum, Markdown, Unix, latex, VSCode, JetBrains'.

**Language** (native) Chinese and Cantonese; (fluent) English; (beginner) Japanese.

## Experience

### NoGhost MACHINE LEARNING ENGINEER - PYTHON

Jun. 2022 - Sep. 2022

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

### Amazon - Alexa 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 - Item Safety 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. Built an effective modern visualization dashboard with these datasets using Elastic Search and Kibana.
- Developed an API package for automating the creation of visualization components and dashboards.
- Received full-time offer.

## Selected Projects

### Personal Website HTML/CSS, TYPESCRIPT, AND GLSL

Jun. 2020 - Present

- Written pages using reactJs, nextJs, threeJs, sass, postcss, pugJs and WebGL.
- Features include: (1) RSS feed backed by CORS proxy server deployed with AWS Lambda. (2) Automated integration using Github Actions. (3) 3D landing page built with React-three-fiber and custom shaders. (4) Responsive and modern CSS. (5) Search engine optimization.
- Project can be found at <https://github.com/Redcxx/personal-website>.

### Map Reduce Utilities JAVA

Feb. 2020 - Mar. 2020

- Developed programs for performing common tasks such as computing tfidf for large document database using Apache Hadoop's Map Reduce.

### MP3 Music Player & Flight Management System JAVA

Mar. 2019 - Jun. 2019

- A MP3 player and flight management system with basic functionalities.
- One of three students who managed to complete this coursework within over last 20 years.

### Propositional Logic Utilities JAVA

Oct. 2019 - Nov. 2019

- A tool for parsing and manipulating propositional logic formulas, supports conversion to normal forms, push negations, tautology and contradiction checks and truth table generation. Project can be found at <https://github.com/Redcxx/PropositionalLogicUtils>.

### Image Downloader PYTHON

Jun. 2019 - Aug. 2019

- Designed and implemented an API supports automatic login, multithreading downloading, various format parsing and filter images, along with a graphical user interface. Project can be found at <https://github.com/Redcxx/Pikax>.

### Photographic Mosaic PYTHON

Aug. 2019 - Aug. 2019

- Built a multi-processing library for generating photographic mosaic, capable of processing and matching over 30k images within 3 minutes, supports various RGB-based and LAB-based color difference algorithms. Project can be found at <https://github.com/Redcxx/Mosaic-Pics>.

### 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.