

# Weilue Luo

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## Education

<b>University College London</b> COMPUTER SCIENCE (DISTINCTION - AVG. 85%)	London, UK Sep. 2021 - Sep. 2022
<b>University of Manchester</b> COMPUTER SCIENCE (DISTINCTION - AVG. 83%)	Manchester, UK Sep. 2018 - Sep. 2021
<b>Bellerbys College</b> COMPUTING (1 <sup>ST</sup> IN COHORT - AVG. 84%)	Brighton, UK Jan. 2018 - Jun. 2018

## Skills

<b>Programming</b>	(>10k lines) Java, Python, HTML/CSS, Typescript/Javascript; (>2k lines) C#, Matlab, C, GLSL.
<b>Tech Stack</b>	Map Reduce, Spark, ReactJs, ThreeJs, NextJs, SASS/SCSS, SQL, Pytorch, Numpy, Matplotlib, NodeJs, Jenkins.
<b>Environment</b>	Git, CR, CI/CD, AWS, Scrum, Markdown, Unix, latex, VSCode, JetBrains'.
<b>Language</b>	(native) Chinese and Cantonese; (fluent) English; (beginner) Japanese.

## Experience

<b>Software Engineer Mentor</b> UNIVERSITY OF MANCHESTER	Oct. 2022 - Nov. 2022
<ul style="list-style-type: none"><li>Mentored a group of 8 second year undergraduate students as they contribute to a open source project. Received positive feedback from students.</li></ul>	
<b>NoGhost</b> MACHINE LEARNING ENGINEER - PYTHON	Jun. 2022 - Sep. 2022
<ul style="list-style-type: none"><li>Part of Master's degree project at UCL, condensed a thesis which highly-rated by engineers and professors.</li><li>Built multi-processing data pipeline, improved and implemented state-of-the-art machine learning papers.</li></ul>	
<b>Amazon - Alexa</b> SOFTWARE ENGINEER INTERNSHIP - JAVA	Jun. 2021 - Sep. 2021
<ul style="list-style-type: none"><li>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.</li><li>Developed an efficient workflow for future experiments, and reduced experiment deployment time needed from days to hours.</li><li>Received full-time offer.</li></ul>	
<b>Amazon - Item Safety</b> SOFTWARE ENGINEER INTERNSHIP - JAVA	Jun. 2020 - Sep. 2020
<ul style="list-style-type: none"><li>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.</li><li>Developed an API package for automating the creation of visualization components and dashboards.</li><li>Received full-time offer.</li></ul>	

## Selected Projects

<b>Personal Website</b> HTML/CSS, TYPESCRIPT, AND GLSL	Sep. 2021 - Present
<ul style="list-style-type: none"><li>Implemented features: (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.</li></ul>	
<b>Local Nameserver</b> PYTHON	Feb. 2022 - Mar. 2022
<ul style="list-style-type: none"><li>Written a local nameserver that able to resolve any IPv4 address according to RFC 1034 and RFC 1035 specification.</li></ul>	
<b>Map Reduce Utilities</b> JAVA	Feb. 2020 - Mar. 2020
<ul style="list-style-type: none"><li>Developed programs for performing common tasks such as computing tfidf for large document database using Apache Hadoop's Map Reduce.</li></ul>	
<b>MP3 Music Player &amp; Flight Management System</b> JAVA	Mar. 2019 - Jun. 2019
<ul style="list-style-type: none"><li>A MP3 player with GUI and custom database, supports functionalities such as play, pause, restart, and upload custom songs.</li><li>A flight management system with GUI and custom database, supports functionalities such as booking, reschedule, cancel and swap flights.</li><li>One of three students who managed to complete this coursework over past 5 years.</li></ul>	
<b>Propositional Logic Utilities</b> JAVA	Oct. 2019 - Nov. 2019
<ul style="list-style-type: none"><li>A tool for parsing and manipulating propositional logic formulas, supports normal form conversions, push negations, and tautology checks.</li></ul>	
<b>Image Downloader</b> PYTHON	Jun. 2019 - Aug. 2019
<ul style="list-style-type: none"><li>Designed and implemented an API supports login, multithreading downloading, parsing and filter images, along with a graphical user interface.</li></ul>	
<b>Photographic Mosaic</b> PYTHON	Aug. 2019 - Aug. 2019
<ul style="list-style-type: none"><li>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.</li></ul>	
<b>Collaborate Live</b> HTML/CSS, AND JAVASCRIPT	Jan. 2019 - Mar. 2019
<ul style="list-style-type: none"><li>Led 7 students to build a web application for a code-based interview. Features include real-time coding, drawing, compilation and terminal.</li><li>Awarded 1<sup>st</sup> place in most appealing idea and highest technical quality prize (2/4 prizes) out of 37 teams.</li></ul>	