

# 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, React, ThreeJs, NextJs, SASS/SCSS, SQL, GraphQL, NodeJs, Jenkins.
<b>Environment</b>	Git, CR, CI/CD, AWS, Scrum, agile, Markdown, linux/windows, 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.</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 ThreeJs and custom shaders. (4) Modern, responsive, mobile-friendly 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>	