

# Zijun Huang

Chinese Citizen, Female, Date of Birth 22<sup>nd</sup> Jan. 1998  
57-56 Lexham Gardens, Kensington, London, W8 6JJ  
<https://www.linkedin.com/in/zijun-huang-4b54b0180/>  
[zijun.huang119@imperial.ac.uk](mailto:zijun.huang119@imperial.ac.uk)  
+86 13680561690

## Education Qualification

---

### BEng in Engineering Mechanics

Sep. 2015 - Jun. 2019

School of Civil Engineering, Wuhan University

GPA 3.90/4, Weighted Ave 91/100, Ranking 1/258 (6 CS Courses 4.00, 7 Math Courses 3.93)

### MSC in Computing Science

Sep. 2019 - Nov. 2020

Department of Computing, Imperial College London

Merit Classification

## Research Projects

---

Data Mining on Low-Dimensional Materials: On the Basis of Three-Dimensional Crystal Elastic

Constant Database in Wuhan University

Sep. 2018 - May. 2019

- Key Work: Data Mining on Crystallographic Structural Database, Density Function Calculation Based On Multithreaded Calculation
- Methods: SQL, Prediction Based On Machine learning using **Support Vector Machine Regression**

One-Dimensional Wave-Equation Finite Difference Modeling in HKUST

Jul. - Aug. 2018

- Key Work: Spatial Temporal Discretization, Optimized Prefactored Compact Schemes
- Methods: **Computational Model**, Finite Difference Algorithm, Finite Element Algorithm

## Software Development Projects

---

Sudoku Solver Webpage Design Based on Linux-based Web Server

Aug. - Dec. 2019

- Key Work: **Web Server** Building Under **Linux**, Front-end Webpage Design
- Methods: Concurrency Model Using the **Thread Pool**, Non-blocking Socket, Reactor Pattern in Event Processing, **Finite Status Machine** Parsing HTTP Requests, Mysql Server **Connection Pool**, Backtracking Algorithm Design, Web Stress Tests with I/O Multiplexing

A Docker-based Containerized Environment For Simulation and Modelling

Sept. 2019 - May. 2020

- Key Work: Webpage Design, **Back-end** Development, **Unit** Test and **Integration** Test
- Methods: Python **Flask**, Python unittest, **CRUD** Using SQLAlchemy ORM, HTML, Third Party API Integration, Postman Test

Clothes Image Classification Based on Fashion-MNIST Dataset Jan. - Feb. 2020

- Key Work: Convolutional Neural Network Training, Adam Optimizer
- Methods: Python Numpy, **Sklearn**, **Torch**

Energy Consumption of Application on Linux-based Environment May. - Sept.2020

- Key Work: Proposing An Energy Model and Visualizing Energy Consumption of Applications
- Methods: Python **Psutil**, **Intel-pin** in C++, Pearson's Correlation Coefficient, Multiple Linear Regression, Nethogs

### Academic Competitions

Zhou Peiyuan National Mechanics Competition for College Students in China Aug. 2017

The Only 1st Prize for Engineering Mechanics Practical Skill Test (Team Leader)

Skills: Finite Element Modelling in Matlab, Numerical Analysis in Fortran

Interdisciplinary Contest in Modeling (ICM) with Honorable Mention Jan.2018 - Apr. 2018

Project: Fragile States Index System - How Does Climate Change Influence Regional Instability?

Skills: (Statistics) Stratification Analysis, Grey Relationship Analysis, Partial Least Square Regression in Matlab

### Scholarships and Awards

National Undergraduate Research Fellowship Wuhan University 2016 - 2018

Award for Creative Participants in Academic Activities Wuhan University May. 2017

Award for Excellent Winter Social Exercise Team (Leader) Wuhan University Mar. 2016

### Technical Skills

- High proficiency shell scripting and Strong Linux experience
- Engineering background fluent in C++, Java
- Multithreaded Programming, Socket Programming, Computer Vision, Tensor Analysis, Computer Network
- Python, SQL

### Paper

*Materials Of Fully Poisson's Ratio Based On Data Mining* in submission Sept.2019