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## EDUCATION AND AWARDS

#### Sept. 2018-**Imperial College London** London, UK Present. MSc Environmental Engineering Expected degree: Distinction Standard Modules include Microbiology, Analytical Chemistry, Solid Waste Management, Circular Economy, Advanced Water and Wastewater Treatment, Mathematical and Statistical Modelling, Environmental Management in Developing Countries, Hydro-informatics. Sept. 2016-**University of Liverpool** Liverpool, UK July. 2018 **BSc** Civil Engineering Awarded Degree: First Class Honors Degree Modules include Sustainable Water Engineering, Material Engineering, Programming for Engineers, Finite Element Analysis, Soil Mechanics, Highway Engineering.

Language: IELTS 7.5

# Sept. 2014- Xi'an Jiaotong-Liverpool University Suzhou, China

## July. 2016 BSc Civil Engineering

- Modules include Design for Engineers, Solids and Structures, Management for Engineers, Engineering Mathematics, Struct Behaviour & Modelling, Hydraulics, Construction Materials, Field Theory, PDE's & Methods.
- Honours:

Math Contest Second Prize Winner in 2016 First-Class Academic Scholarship in 2015

## **PROJECTS & ACADEMIC EXPERIENCE**

Glass

## Mar. 2019 - Production of Foamed Ceramics using Furnace Bottom Ash and Recycled

Present

## Final Dissertation at Imperial College London

The project aims to optimise the use of waste bottom ash and recycled glass in foamed ceramics production, which is a step towards a circular economy. Furnace bottom ash is a waste material and remains a problem for coal firing stations.

Highlights:

- Independently designed and conducted experiments to improve the processing of ceramic foams at laboratory scale
- Successfully produced FBA glass-ceramic foams with high porosity and low density
- Improved scientific writing and presentation skills
- Gained industry insight and entrepreneur opportunities
- Expected to participate in writing a conference/journal paper

## Sept. 2018 – Determining Mechanical Properties of Human Cornea using Inverse Analysis May. 2019

## Final Year Project at the University of Liverpool

The project aimed to determine the mechanical properties of human cornea using a non-contact method. The human cornea was modelled and simulated in Abaqus using finite element analysis.

Highlights:

- Enhanced ability to learn a new discipline (biomechanics) efficiently
- Improved modelling and computational skills
- Improved data processing skills

### Jul. 2016 – Determining Embodied Energy of a Factory Building using LCA

Sept. 2016 Summer Project at Xi'an-Jiaotong Liverpool University

The project aimed to determine the embodied energy of a factory building using life cycle assessment. The factory was modelled in Revit, while the embodied energy of construction materials was assessed based on the system boundary from cradle to gate. The report was submitted to the Conference.

Highlights:

- Conducted data analysis and created a life cycle inventory database
- Calculated embodied energy in a building and processed the data using Revit with BIM
- Improved modelling, computing and statistical skills, especially SQL and the advanced functions of the Access database
- Had a face-to-face contact with the professionals in the industry

### 2016, Winter Prediction of Water Availability in California using Time Series Analysis

### Mathematical Contest in Modelling in Suzhou

Participated in MCM in 2016 Winter and was awarded Second Prize. It was focused on global water scarcity, and our group provided a mathematical model for the prediction of water demand and supply in a specific region.

Highlights:

- Enhanced MATLAB and analytical skills in three days of intense work
- Improved online searching and literature review
- Improved interdisciplinary skills through group collaboration
- Gained insight into global water problems and environmental challenges

### SKILLS

## INTERESTS

- Fast learner
- Good interdisciplinary skills
- Abundant lab experience
- Both independent project and teamwork adaptable
- Advanced computational and analytical skills
- Proficient scientific writing and presentation skills
- Organised and self-motivated

- Reduce, reuse and recycling of materials in making high value productions
- Interdisciplinary engineering applications
- Solid waste management in developing countries and rural areas
- Mathematical Modelling and Programming