StudentShapers Recruitment: Calling all engineering and natural science undergraduates!

Visualising Crowds: Creating Interactive Learning Materials for the Crowd Science I-STEMM Module

Bursary: £2,440 (£305 per week)

Who should apply: Natural Science/Engineering undergraduate students currently in 2nd or 3rd year. Some programming experience is necessary - Java/JavaScript/Python would be advantageous but is not required.

Campus/Location: South Kensington

Project details: We're developing a new course called 'The Science of Crowds' which will be offered to 2nd and 3rd year undergraduates throughout the college as part of an expanded Horzions programme from 2021 onwards. For the course, we are developing some interactive visualisations of crowd simulation models in order to enhance learning – one model will be a 'cellular automata' model, and another the 'social force model'.

This project will involve you working with the Imperial Visualisations team to develop a visualisation of one of the two crowd simulation models. The Imperial Visualisations team is made up of Imperial students that work to create interactive visualisations that can aid with the teaching of lecture courses delivered in the college. Previously they've worked with departments such as Physics and Mechanical Engineering, and this is the first time they'll be working to create a visualisations for Civil Engineering. As part of this project, you will write functional code that enables the model to run (in JavaScript), and the visualisation code that allows users to interact with the model (in HTML). This project is a partnership between you and the course leaders of the 'Science of Crowds' course – you'll have a lot of input on exactly how the final visualisation will look. You will be able to suggest how to break down the learning points for students, as the course will eventually be delivered to students exactly like yourself.

The project will run for 8 weeks full-time during Summer 2020 break (there is some flexibility on exactly which weeks you will work during this period). During this time you'll be based with the Imperial Visualisations team, but will have regular meetings with the course developers to ensure the partnership works. The course leaders will also be easily available online through Slack to assist you quickly if you have an queries.

How to apply: Send an expression of interest email (no more than 250 words) introducing yourself, and why you wish to take part in this project. Include details of your degree course, and relevant programming experience.

Deadline: 30th April 2020

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