Who are we?

We are the University of Cambridge's presence in Singapore, Cambridge CARES. Our activities are sponsored by the National Research Foundation's CREATE programme. Our first research programme, Cambridge Centre for Carbon Reduction in Chemical Technology (C4T), is a collaboration between University of Cambridge, Nanyang Technological University and National University of Singapore.

Our team is comprised of world-class scientists and engineers working in a vibrant, fast-paced environment with great opportunities for knowledge and skills development.

Who are we looking for?

We are looking for a 3rd or 4th year student to work on our JPS project, commencing the internship in May 2021. Applicants should have:

- Some understanding of object-oriented programming languages (Java), scripting languages (Python) and IDEs (NetBeans, Eclipse)
- Some understanding of mathematical and statistical skills, with experience in algorithm and methods development (an advantage)
- Some understanding of relational and non-relational database management systems, semantic web and ontologies (an advantage)
- Some understanding of software engineering/web development using C++/Java, as well as JavaScript/PHP, etc.
- Excellent oral and written communication skills in English

What does the role involve?

The J-Park Simulator Simulator (JPS) project aims at a comprehensive virtualisation of industrial operations, i.e. a hierarchical representation of data and models associated with entities in an industrial park, in order to exploit synergies for resource, energy and emissions savings. The overall goal is, using ideas from the Semantic Web, Internet of Things, Industry 4.0, machine learning, artificial intelligence and statistics, to create an integrated platform capable of providing quantitative decision support.

The core responsibilities and primary functions of the intern include:

- Developing mathematical systems/models for at least two typical processes on Jurong Island
- Creating semantic representations of data, models and algorithms
- Designing and developing executable programs and browser based applications

What can we offer you?

- A stimulating working environment with friendly, highly motivated colleagues
- Opportunities to develop and implement new ideas in a creative environment

Please apply by uploading your CV and academic transcript to https://talent.sage.hr/jobs/ec9d5ede-ef7d-42b0-b4b8-d05daf35dd2e. If you have any questions, please feel free to reach out to the HR team at recruitment@cares.cam.ac.uk.