

UNIVERSITY OF NOTTINGHAM
Recruitment Role Profile Form

Job Title: KTP Associate: Software Research Engineer

School/Department: School of Computer Science and Eventmap

Job Family and Level: Research & Teaching Offscale

Contract Status: Fixed-term for a period of 24 months

Hours of Work: Full-time (36.25 hours per week)

Location: EventMAP, The Warehouse, 7 James Street South, Belfast, Northern Ireland, BT2 8DN

Reporting to: Dr Ender Ozcan

The Purpose of the New Role:

To develop new visualisation tools for Eventmap's software products and to further their work in the emerging area of 'fairness' measures in timetabling and scheduling.

	Main Responsibilities	% time per year
1.	To familiarise with Eventmap and their software products, establish relationship with key players and to identify new functionalities that will result in the new software offering.	10%
2.	To draw knowledge and expertise from the academic supervisor/lead, external working group and Eventmap staff in order to identify the key techniques (and design decisions) required for each project stage.	10%
3.	To rigorously define the multi-objective approach with fairness that will deliver the required functionalities in the new product offering, that is: 1) collect and prepare data, 2) specify fairness for target customers, 3) perform multi-objective analysis of solutions with fairness Continuous communication with the supervisor, Eventmap and external working group will be part of this challenge.	30%
4.	To work with the Eventmap product development team in order to translate the selected algorithms and software design decisions into the new product offering following Eventmap's in-house approach.	30%
5.	To disseminate knowledge and expertise and project outcomes for different audiences, including Eventmap staff, Eventmap customers, and academic team.	10%
6.	To fully embed the software product offerings with fairness support into EventMap optimisation engine and liaise with the research group on the KTP project which will have the potential to open up new insights and opportunities for further future knowledge transfer and research.	10%

Knowledge, Skills, Qualifications & Experience

	Essential	Desirable

Qualifications/ Education	<ul style="list-style-type: none"> • Good BSc (or higher: MSc, PhD) degree, or equivalent, in Computer Science or a similar science/ engineering discipline. 	<ul style="list-style-type: none"> • Specialisation in artificial intelligence, and/or closely related areas.
Skills/Training	<ul style="list-style-type: none"> • Proficient in developing software applications in C#, ASP.NET, MS-SQL Server, JavaScript, and common frontend JavaScript libraries such as React, Backbone and Angular. • Excellent analytical and problem solving skills. • Be able to work independently, prioritise tasks and work to tight deadlines. • Good project management skills. • Good interpersonal and communication skills to deal with a variety of people at different levels. 	
Experience	<ul style="list-style-type: none"> • Working knowledge of Continuous Integration and experience writing unit tests and using TDD. • Experience in object-oriented design principles. 	<ul style="list-style-type: none"> • Experience in scheduling, timetabling or optimisation. • Experience in developing professional software.
Statutory/ Legal	<ul style="list-style-type: none"> • Eligible to work in the UK. 	

Decision Making

i) taken independently by the role holder;

- Identify relevant literature, software tools, fairness metrics and optimisation methodologies according to project aims and present them for discussion with the project supervisors.
- Implement/modify optimisation techniques, visualisation tools and conducting software development on a day-to day basis according to agreed objectives.
- Decision on technical issues arising as part of the project work plan.

ii) taken in collaboration with others;

- Exploration of alternative ways to support to overall project goals.
- Decision on strategies to achieve the agreed project goals.
- Decision of documentation to be written for system specification and dissemination.
- Mechanisms for interaction with system users and project stakeholders.

iii) referred to the appropriate line manager by the role holder.

- Changes to the project directions, objectives or goals.
- Approval of documentation for circulation and/or presentation outside the project team.

Additional Information

The role holder will work closely with the Eventmap team and also be part of the ASAP research group in the School of Computer Science where the KTP academic team is based.

Knowledge Transfer Partnerships is a government funded technology transfer initiative that supports partnerships between business and universities, placing graduates on challenging, high profile projects. Further information is available at: www.nottingham.ac.uk/ktp