Person Specification

This form lists the essential and desirable requirements needed in order to do the job.

Applicants will be shortlisted **solely** on the extent to which they meet these requirements.

**Job title:** Research Officer in Algorithms and Optimisation

**Department/Division:** Department of Mathematics  
**Accountable to:** Head of Department

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<th>Competency</th>
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| **Knowledge and Experience**      | Successful completion (or near completion) of PhD in a discipline relevant to optimisation, such as Mathematics, Computer Science, or Operations Research.  
Ability to demonstrate research interests and comprehensive knowledge and experience in areas relevant to the project ScaleOpt: the theoretical foundations of discrete and continuous optimization, with a particular focus on strongly polynomial computability.  
Evidence of developing a body of good quality publications, in well-recognised peer reviewed outlets, through independent original research.  
Research expertise in some of the following topics:  
- efficient algorithms for linear and convex programming, and the geometry of linear and convex programs;  
- strongly polynomial computability;  
- mean payoff games and tropical linear programming;  
- polynomial-time exact and approximation algorithms for network optimization problems;  
- market equilibrium computation. | E   |
| **Communication**                 | Excellent written and oral communication skills, including an ability to place one's specialist work within a broader context and to communicate research findings effectively to a range of audiences. | E   |
| **Investigation, analysis and research** | Ability to analyse and research complex ideas, concepts or theories. | E   |
| Planning and organisation | Ability to take a lead role in pursuing the activities and objectives of the research project. Evidence of good time and workload management and planning skills, setting priorities and committing to delivery within deadlines. | E  
E |
| Teamwork and motivation | A commitment and demonstrated ability to work as part of a collaborative research team in assisting the smooth running of the project Ability to take responsibility for, and work independently on, specific project tasks, consulting and reporting to colleagues appropriately. A flexible and creative attitude to work. Willingness to travel within the United Kingdom, EU and beyond to conduct research and attend conferences. | D  
D |
| Liaison and networking | Evidence of experience of participation in academic events. Demonstrated ability to initiate and build and maintain a collaborative network of contacts, including with external bodies. | D  
D |

E – Essential: requirements without which the job could not be done.
D – Desirable: requirements that would enable the candidate to perform the job well.