

# Oxford University Computing Laboratory

## Automated Verification of Probabilistic Programs

Two 18 Month Grade 7 Research Assistant posts

### Further Particulars

The Computing Laboratory is looking to recruit two Grade 7 Postdoctoral Research Assistants to work on the Automated Verification of Probabilistic Programs projects under the direction of Joel Ouaknine, Andrzej Murawski, and James Worrell in the Oxford University Computing Laboratory

The aims of this project are to develop algorithms, techniques, and tools for analysing and verifying the correctness of probabilistic systems, and to tackle a number of theoretical complexity and computability questions that arise naturally in the context of this research.

The work will take place within the Verification group in Oxford University Computing Laboratory, which comprises, in addition to the three investigators, world-leading experts in probabilistic verification and model checking such as Marta Kwiatkowska, Daniel Kroening, Gavin Lowe, Tom Melham, Luke Ong, and Bill Roscoe.

#### *Selection Criteria*

The following are essential:

- Applicants should have, or be about to obtain, a PhD in computer science or a related discipline
- Proven ability to contribute to the writing of scientific articles of high quality
- Ability to work independently and to be self-motivated

In addition, candidates should match as closely as possible one of the following two profiles:

- strong programming skills, preferably in C,C++ or Java
- some experience of tool construction
- basic knowledge of program analysis or program verification

or

- a strong background in theoretical computer science (e.g., logic, semantics, algorithms, automata theory or complexity theory)
- exposure to topics in system or program verification

#### *Salary and Benefits*

The posts which are funded by EPSRC are for fixed term appointments of up to 18 months, with a salary on the University grade 07S scale (currently £28,839 to £35,469 pa), includes membership of USS and have an annual leave entitlement of 38 days per year (inclusive of all public holidays and university closed periods).

#### *Application Procedure*

Applications should be in the form of a letter of application (clearly stating the post title) setting out how the candidate meets the selection criteria, and supported by a full curriculum vitae, together with the names and addresses of two referees. These should preferably be emailed (most formats accepted) to

[job1@comlab.ox.ac.uk](mailto:job1@comlab.ox.ac.uk) or alternatively, posted to: The Administrator, Oxford University Computing Laboratory, Wolfson Building, Parks Road, Oxford, OX1 3QD

The closing date for applications is **Sunday 20<sup>th</sup> September 2009**. Applications received after this time will not be considered.

**Applicants must ask their referees to consider the further particulars and email the reference directly to [job1@comlab.ox.ac.uk](mailto:job1@comlab.ox.ac.uk) or, alternatively, post or fax (+44 1865 283532) it to the above address so that references arrive by the closing date.**

**The policy and practice of the University of Oxford require that all staff are offered equal opportunities within employment. Entry into employment with the University and progression within employment will be determined only by personal merit and the application of criteria which are related to the duties of each particular post and the relevant salary structure. In all cases, ability to perform the job will be the primary consideration. Subject to statutory provisions, no applicant or member of staff will be treated less favourably than another because of his or her age, sex, marital or civil partnership status, sexual orientation, religion or belief, racial group or disability.**

**Applicants who would need a work visa if appointed to the post are asked to note that under the UK's new points-based migration system they will need to demonstrate that they have sufficient points, and in particular that:**

**(i) they have sufficient English language skills (evidenced by having passed a test in basic English, or coming from a majority English-speaking country, or having taken a degree taught in English)**

***and***

**(ii) that they have sufficient funds to maintain themselves and any dependants until they receive their first salary payment.**

**Further information is available at:**

**<http://www.ukba.homeoffice.gov.uk/workingintheuk/tier2/generalarrangements/eligibility/>**

**All data supplied by applicants will be used only for the purposes of determining their suitability for the post and will be held in accordance with the principles of the Data Protection Act 1998 and the University's Data Protection Policy, but if the person appointed to the post is a migrant sponsored under the UK's new points-based migration system, we are required to retain all applications for the duration of the sponsorship.**