



UNIVERSITY OF
OXFORD

Oxford University Computing Laboratory

Project “Automated Formal Verification”

Grade 08S Researcher Post

Further Details

The Automated Formal Verification Group is offering a post for a Grade 8 Research Assistant to work on program analysis methods for incremental software development under the direction of Daniel Kroening.

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

Main Duties and Responsibilities

The main duties of the successful candidate will include:

- Take responsibility for the execution of the research plan as defined in the description of work of the Pincette project (to include Research project management, co-ordination of primary data collection exercises and fieldwork);
- Provide leadership for the research aspects of Pincette as a whole in interaction with the research staff at the Pincette partner organisations;
- Direct a junior research assistant and a doctoral student who are associated with the project by setting goals and managing the resources available;
- Direct MSc-level graduate students on projects related to Pincette;
- Present results at international conferences and grant review meetings;
- Write publications at the standard of the internationally leading venues;

- Raise research funds through grant applications and manage own area of a larger research budget;
- Develop and implement new research methodologies and materials;
- Develop research questions within a specific context, conduct individual research, analysing detailed and complex qualitative and/or quantitative data from a variety of sources, and generate original ideas by building on existing concepts;
- Share responsibility for shaping the research group's plans and the writing of group-funding applications for new research projects.

Selection Criteria

Essential

- A doctoral degree in computer science or a closely related discipline;
- A substantial track record of high-quality publications in internationally leading venues in an area related to automated formal verification (such as CAV, TACAS, POPL, PLDI);
- Possess sufficient specialist knowledge in the discipline to develop research projects and methodologies.

Desirable:

- Experience of applying formal analysis tools in an industrial context;
- A track record advising the research of doctoral students;
- A track record of writing successful applications for research funding;
- Documented experience of independent lecturing.

Candidates with prior experience in software model checking are especially encouraged to contact us.

Salary and Benefits

The post, which is a full time appointment, is funded by FP7 STREP "PINCETTE" and is available initially for 1 year in the first instance. The post has a salary on the University grade 08 scale (currently £36,715 to £43,840). This includes membership of the University pension scheme and has an annual leave entitlement of 38 days per year (inclusive of all public holidays and university closed periods).

Method of Application

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. **Candidates should state clearly which post they are applying for.**

These should preferably be sent by email (most formats accepted) to:

Job09@comlab.ox.ac.uk

or alternatively, posted to: The Administrator, Oxford University Computing Laboratory, Wolfson Building, Parks Road, Oxford OX1 3QD.

Applications should be sent in time to arrive by the closing date of **19th November 2010**. Applications received after this time may not be considered.

Candidates must also ask their referees to consider these further particulars and email their reference directly to **job09@comlab.ox.ac.uk** or, alternatively, post or fax it to the above address (fax (+44 1865 283532) such that the reference arrives by, or shortly after, 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