Imperial College
London

Job Title:	Research Associate at the Intersection of Data Management and Compilers
Department/School/Faculty:	Department of Computing, Faculty of Engineering
Campus location:	South Kensington Campus
Job Family/Level:	Research, Research Associate
Responsible to:	Dr Holger Pirk
Line Management responsibility for:	N/A
Key Working Relationships:	Internal staff and students in the Department of Computing at Imperial college
Contract type:	Full-time, Fixed term to start ASAP for 24 months

Research Programme

We are looking to hire a Research Associate (post-doctoral) to work on projects at the intersection of compilers and data management systems at the Department of Computing at Imperial College London. The objective is to study how techniques and technologies from compilers can be applied to data management systems and vice-versa. You will also have the opportunity to work on larger projects (involving other members of the Large-Scale Data & Systems group as well as external & industry collaborators). You will also have time to develop your own research agenda towards a successful career in academia or industrial research.

The post will be based in the Department of Computing at Imperial College London at the South Kensington Campus. The Department of Computing is a leading department of Computer Science among UK Universities, and has consistently been awarded the highest research rating. In the 2014 REF assessment, the Department was ranked third (1st in the Research Intensity table published by The Times Higher) and was rated as "Excellent" in the previous national assessment of teaching quality.

The position is fully funded for two years and includes funding for equipment and travel. Depending on success, the position may be extended beyond the initial two years.

Key Responsibilities

Main Duties

- To plan and carry out research in accordance with project aims.
- To report and present on project activities and findings.
- To publish and present research results and findings in high quality journals and conferences.
- To attend relevant project meetings, workshops and conferences as necessary.
- To conduct and plan own scientific work with appropriate supervision.
- To collaborate with industrial project partners.
- To develop contacts and research collaborations in order to further the project aims.
- To undertake any other duties commensurate with the grade of the post as directed by the line manager/supervisor.
- To undertake certain teaching duties without additional payment, subject to any limitations prescribed by the terms of the grant or contract under with they are employed.
- To maintain own continuing professional and academic development.

- Assist in the supervision of undergraduate and postgraduate research students and research assistants as required.
- To take initiatives in the planning of research.
- To actively participate in the research programme of the Group.
- To conduct and plan own scientific work with appropriate supervision.
- To maintain highly organised and accurate record of experimental work.

Other duties

- To undertake any necessary training and/or development
- To undertake appropriate administration tasks
- To attend relevant meetings
- To observe and comply with all College policies and regulations, including the key policies and procedures on Confidentiality, Conflict of Interest, Business Continuity, Data Protection, Equal Opportunities, Ethics related, External Interests, Financial Regulations, Health and Safety, Imperial Expectations (for new leaders, managers and supervisors), Information Technology, and Smoking.
- To undertake specific safety responsibilities relevant to individual roles, as set out on the College Health and Safety Structure and Responsibilities web page: www.imperial.ac.uk/safety/policies/organisationandarrangements.
- To undertake Business Continuity responsibilities relevant to individual roles

Job descriptions cannot be exhaustive and so the post holder may be required to undertake other duties, which are broadly in line with the above key responsibilities.

Imperial College is committed to equality of opportunity and to eliminating discrimination. All employees are expected to adhere to the principles set out in our Equal Opportunities in Employment Policy, Promoting Race Equality Policy and Disability Policy and all other relevant guidance/practice frameworks.

Job Description

Requirements Candidates/post holders will be expected to demonstrate the following:	Essential (E)/ Desirable (D)
Education	
Research Associate A PhD (or be close to completion) in an area pertinent to the subject area, i.e. Computer Science	E
Research Assistant A Master's degree in an area pertinent to the subject area, i.e. Computer Science	D
Experience	
A track record of publications in top conferences or journals in the field	E
Experience in either the development of data management systems or programming language compilers	D
Knowledge	
Strong & proven implementation skills in the development of complex software	E
Programming experience in a systems programming language (Java, C++, C#, Rust, C, etc.)	E
Skills & Abilities	
Excellent verbal communication skills and the ability to deal with a wide range of people	E
Excellent written communication skills and the ability to write clearly and succinctly for publication	E
Creative and independent thinking.	E
Ability to conduct a detailed review of recent literature	E
Ability to develop and apply new concepts	E
Creative approach to problem-solving	E
Ability to organise own work with minimal supervision	E
Ability to prioritise own work in response to deadlines	E
Advanced computer skills, including word-processing, spreadsheets and the Internet	E
Other	
Willingness to work as part of a team and to be open-minded and cooperative	E
Flexible attitude towards work	E
Discipline and regard for confidentiality and security at all times	E
Willingness to undertake any necessary training for the role	E
Willingness to travel both within the United Kingdom and abroad to conduct research and attend conferences	E
Willingness to work out of normal working hours (including weekends) if the requirements of the project demand	E

Please note that job descriptions cannot be exhaustive, and the post-holder may be required to undertake other duties, which are broadly in line with the above key responsibilities.

Imperial College is committed to equality of opportunity and to eliminating discrimination. All employees are expected to follow the 7 Imperial Expectations detailed below:

1)   Champion a positive approach to change and opportunity
2)   Communicate regularly and effectively within and across teams
3)   Consider the thoughts and expectations of others
4)   Deliver positive outcomes

Job Description

5)   Encourage inclusive participation and eliminate discrimination
6)   Support and develop staff to optimise talent
7)   Work in a planned and managed way

Employees are also required to comply with all College policies and regulations paying special attention to:

- Confidentiality
- Conflict of Interest
- Data Protection
- Equal Opportunities
- Financial Regulations
- Health and Safety
- Information Technology
- Smoking
- Private Engagements and Register of Interests

They must also undertake specific training and assume responsibility for safety relevant to specific roles, as set out on the [College Website Health and Safety Structure and Responsibilities](#) page.

The College is a proud signatory to the San-Francisco Declaration on Research Assessment (DORA), which means that in hiring and promotion decisions, we evaluate applicants on the quality of their work, not the journal impact factor where it is published. For more information, see https://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-evaluation/

The College believes that the use of animals in research is vital to improve human and animal health and welfare. Animals may only be used in research programmes where their use is shown to be necessary for developing new treatments and making medical advances. Imperial is committed to ensuring that, in cases where this research is deemed essential, all animals in the College's care are treated with full respect, and that all staff involved with this work show due consideration at every level. http://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-integrity/animal-research/

Committed to equality and valuing diversity, we are an Athena SWAN Silver Award winner, a Stonewall Diversity Champion, a Disability Confident Employer and work in partnership with GIRES to promote respect for trans people.