

Job description and selection criteria

Job title	Glasstone Research Fellow in Science
Division	Mathematical, Physical and Life Sciences Division
Department	Computer Science
Location	Wolfson Building, Parks Road, Oxford OX1 3QD
Grade and salary	Grade 7: £33,309 - £40,927 per annum, with a discretionary range to £44,706 per annum.
Hours	Full Time
Contract type	Fixed-term for 3 years
Vacancy reference	153588
Additional Information	You will be based in the Wolfson Building but you may have the opportunity for occasional remote working in agreement with your line manager.

The role

The prestigious Glasstone Research Fellowships in Science are supported by the Glasstone Bequest, which was set up to encourage scientists at an early stage of their career to follow their research interests at Oxford, one of the world's leading science universities. Preference will be given to candidates who are at an early stage in their research career and who have not already held an independent fellowship.

Applications are invited for the Glasstone Research Fellowship, tenable at the University of Oxford in the field of Computer Science and aligned with one of the research themes of the Department of Computer Science (Algorithms & Complexity Theory, Artificial Intelligence and Machine Learning, Automated Verification, Computational Biology and Health Informatics, Cyber-Physical Systems, Data Knowledge, Foundations Structures and Quantum, Human-Centred Computing, Programming Languages, Security). The next fellowships to be awarded will normally start from 1 October 2022.

Eligibility

The fellowships allow successful applicants the opportunity to conduct original research in the scientific fields listed above.



Interdisciplinary applications are welcome, but the main research approach(es) being proposed should fall within the scope of work of one or more of the eligible themes.

Applicants must hold a PhD/DPhil in Computer Science or a cognate discipline, by the start of the fellowship on 1st of October 2022. Preference will be given to candidates at an early stage in their research career and who have not already held an independent fellowship.

Potential applicants who have any doubt as to the eligibility of their proposed research in terms of broad subject area or main research approach should contact Professor James Worrell, email james.worrell@cs.ox.ac.uk before applying.) Potential applicants wishing to discuss research proposals or the availability of facilities should contact the relevant scientists in the appropriate department.

Applications are especially welcome from women and minority ethnic candidates, who are underrepresented in academic posts at Oxford.

Please read the How to Apply section below carefully before submitting your application.

Main Duties and Responsibilities

The Glasstone Research Fellows are expected to:

- conduct an original programme of research aligned with one of the research themes of the Department Algorithms & Complexity Theory, Artificial Intelligence and Machine Learning, Automated Verification, Computational Biology and Health Informatics, Cyber-Physical Systems, Data Knowledge, Foundations Structures and Quantum, Human-Centred Computing, Programming Languages, Security
- disseminate their research through publication in scholarly journals, participation in international conferences and seminars, and through other media
- contribute to the intellectual life of the department
- gain some experience of teaching (up to a maximum of six hours per week)

Essential Selection Criteria

The following qualifications, qualities, and experience will be taken into consideration.

- (a) Applicants must hold a PhD/DPhil in Computer Science or a cognate discipline. The PhD/DPhil must have been awarded by the start of the fellowship on 1st of October 2022.
- (b) An aptitude for original scientific research in one of the fields specified above in the section on eligibility
- (c) A publication record in scholarly journals consonant with experience and field of study
- (d) The merit of the research proposal submitted with the application

(e) Research interests that align with the host department's activities; this can cover bringing in expertise in a new field as well as fitting in with existing strengths

(f) Breadth of experience: candidates normally should have, or be seeking to obtain, experience in more than one academic institution

Please note that preference will be given to candidates at an early stage in their research career and who have not already held an independent fellowship.

Pre-employment screening

All offers of employment are made subject to standard pre-employment screening, as applicable to the post.

If you are offered the post, you will be asked to provide proof of your right-to-work, your identity, and we will contact the referees you have nominated. You will also be asked to complete a health declaration (so that you can tell us about any health conditions or disabilities so that we can discuss appropriate adjustments with you), and a declaration of any unspent criminal convictions.

We advise all applicants to read the candidate notes on the University's pre-employment screening procedures, found at:

www.ox.ac.uk/about/jobs/preemploymentscreening/.

About the University of Oxford

Welcome to the University of Oxford. We aim to lead the world in research and education for the benefit of society both in the UK and globally. Oxford's researchers engage with academic, commercial and cultural partners across the world to stimulate high-quality research and enable innovation through a broad range of social, policy and economic impacts.

We believe our strengths lie both in empowering individuals and teams to address fundamental questions of global significance, while providing all our staff with a welcoming and inclusive workplace that enables everyone to develop and do their best work. Recognising that diversity is our strength, vital for innovation and creativity, we aspire to build a truly diverse community which values and respects every individual's unique contribution.

While we have long traditions of scholarship, we are also forward-looking, creative and cutting-edge. Oxford is one of Europe's most entrepreneurial universities. Income from external research contracts in 2016/17 exceeded £564m and we rank first in the UK for university spin-outs, with more than 130 companies created to date. We are also recognised as leaders in support for social enterprise.

Join us and you will find a unique, democratic and international community, a great range of staff benefits and access to a vibrant array of cultural activities in the beautiful city of Oxford.

For more information please visit: www.ox.ac.uk/about/organisation

Department of Computer Science

The Department of Computer Science was established in 1957, making it one of the longest-established Computer Science departments in the country. It is one of the UK's

leading Computer Science Departments (ranked first in a number of international rankings). The UK Research Excellence Framework (REF) in December 2014 resulted in 74 members of the Department having 53% of their research activity ranked in the top category of 4* (world-leading). Overall, we received an average of 3.34 across the Department (3* being internationally excellent). A significant majority of the Department are active in externally sponsored research, with both government and industrial funding. At present, there are 69 members of academic staff and almost 100 research staff.

The Department has close links with government, industry, and other departments within the University. Among the latter are Mathematics, Engineering, Physics, Statistics and a number of life sciences departments. The Department is housed across multiple sites within the University's South Parks Road Science Area, facilitating strong collaborative links with research groups and institutes in closely allied areas (including the Oxford Internet Institute and the Oxford e-Research Centre). This is an essentially interdisciplinary activity which is at present attracting major funding from a number of sources. At present, the Department holds over £50m in external research contracts.

Research in the Department is currently managed in ten themes:

- *Algorithms & Complexity Theory* focusses on determining the inherent difficulty of computational problems, classifying problems according to this inherent difficulty, and designing and analysing algorithms that use computational resources as efficiently as possible;
- *Artificial Intelligence & Machine Learning* focuses on theoretical foundations, multiagent systems, deep learning and computational linguistics;
- *Automated Verification* investigates theory and practice of formal verification and correct-by-construction synthesis for software and hardware systems;
- *Computational Biology & Health Informatics* is concerned with computational approaches for biomedical research and healthcare innovation;
- *Cyber-Physical Systems* is focusing on intelligent and autonomous sensor systems with applications in positioning, healthcare, environmental monitoring and smart cities;
- *Foundations, Structures and Quantum* embraces interdisciplinary research, and has a particular interest in structural foundations of quantum computation;
- *Human-Centred Computing* covers human-computer interaction, social computing and world-wide web;
- *Data and Knowledge* covers databases, knowledge representation and reasoning;
- *Programming Languages* covers functional programming, program analysis, and programming language foundations;
- *Security* specialises in cybersecurity, protocol analysis, systems security, trusted computing, human-centred security, and networking.

For more information please visit: <http://www.cs.ox.ac.uk/> .

The Mathematical, Physical, and Life Sciences Division (MPLS)

The Mathematical, Physical, and Life Sciences (MPLS) Division is one of the four academic divisions of the University. Oxford is widely recognised as one of the world's leading science universities. The disciplines within the MPLS Division regularly appear at the highest levels in world rankings. In the results of the six-yearly UK-wide assessment of university research, REF2014, the MPLS division received the highest overall grade point average (GPA) and the highest GPA for outputs. We received the highest proportion of 4*

outputs, and the highest proportion of 4* activity overall. More than 50 per cent of MPLS activity was assessed as world leading.

The MPLS Division's 10 departments and 3 interdisciplinary units span the full spectrum of the mathematical, computational, physical, engineering and life sciences, and undertake both fundamental research and cutting-edge applied work. Our research addresses major societal and technological challenges and is increasingly focused on key interdisciplinary issues. We collaborate closely with colleagues in Oxford across the medical sciences, social sciences and humanities, and with other universities, research organisations and industrial partners across the globe in pursuit of innovative research geared to address critical and fundamental scientific questions.

MPLS is proud to be the home of some of the most creative and innovative scientific thinkers and leaders working in academe. Our senior researchers have been awarded some of the most significant scientific honours (including Nobel prizes and prestigious titles such as FRS and FR.Eng) and we have a strong tradition of attracting and nurturing the very best early career researchers who regularly secure prestigious fellowships. The Division is also the proud holder of eight Athena Swan Awards (4 Silver and 4 Bronze) illustrating our commitment to ensure good practice and to encourage women in science at all levels in the division.

We have around 6,000 students and play a major role in training the next generation of leading scientists. Oxford's international reputation for excellence in teaching is reflected in its position at the top of the major league tables and subject assessments. MPLS academics educate students of high academic merit and potential from all over the world. Through a mixture of lectures, practical work and the distinctive college tutorial system, students develop their ability to solve major mathematical, scientific and engineering problems.

MPLS is dedicated to bringing the wonder and potential of science to the attention of audiences far beyond the world of academia. We have a strong commitment to supporting public engagement in science through initiatives including the Oxford Sparks portal (<http://www.oxfordsparks.net/>) and a large variety of outreach activities; these are crucial activities given so many societal and technological issues demand an understanding of the science that underpins them. We also endeavour to bring the potential of our scientific efforts forward for practical and beneficial application to the real world and our desire is to link our best scientific minds with industry and public policy makers.

For more information about the MPLS division, please visit: <http://www.mpls.ox.ac.uk/>.

How to apply

To apply, click on the **Apply Now** button on the 'Job Details' page (to locate the post via the University's jobs page, or search at <https://www.jobs.ox.ac.uk/> using vacancy ID **153588** to locate and click on the relevant post. Having pressed Apply Now, follow the on-screen instructions to register as a new user or log-in if you have applied previously. You will then be required to complete a small number of screens with your details, and will be prompted to upload documents to support your application.

You should upload 3 documents in support of your application. They must be formatted as .PDF files with your surname, initials and the document type in the filename, for example SmithJM_Form.pdf, SmithJM_CV.pdf, SmithJM_Prop.pdf

1. A **completed application form**: the template is available online with this job description
2. A **CV with publications list**: please ensure that your CV contains any brief description needed to explain your research experience
3. A **research proposal** setting out what you aim to achieve during the fellowship: this must not exceed two sides of A4 in length (including any bibliography), and it should start with a short summary written for a non-specialist scientific reader

These 3 documents together constitute the 'supporting statement' for your application that the online system will refer to. In these documents you should explain how you meet the selection criteria for the post using examples of your skills and experience. This may include experience gained in employment, education, or during career breaks (such as time out to care for dependents). Your application will be judged solely on the basis of how you demonstrate that you meet the selection criteria stated in the job description.

Please ensure that you upload only the 3 documents above: extracts from previous work or other supporting material should not be sent at this stage. Applications must include an application form which specifies the Theme that an application is being made to. *Applications submitted without a completed application form, or without a cv or research proposal will not be considered.*

Applicants must hold a PhD/DPhil, by the start of the fellowship on 1st of October 2022.

When prompted on-screen, please provide details of three referees. At least one of your referees should be from your current or most recent employing institution. Please do not seek more than three references.

Applicants must ask their three referees to write directly to the glasstone.fellowship@cs.ox.ac.uk using the same format for their reference submission as your application, your surname, initials and REF then the referees surname e.g. SmithJMREFJones so that references are received by the application deadline of 12.00 Midday on 29th November 2021. It is the responsibility of the applicant to check with their referees to ensure that all references are received, otherwise the application may be considered without this information.

The interviews are expected to be held on 17th and 18th of January 2022.

All applications must be received by **12.00 midday on 29th November 2021**, as stated in the online advertisement. Should you experience any difficulties using the online application system, please email recruitment.support@admin.ox.ac.uk. Further help and support is available from www.ox.ac.uk/about_the_university/jobs/support/. To return to the online application at any stage, please go to: www.recruit.ox.ac.uk. Please note that you will be notified of the progress of your application by automatic emails from our e-recruitment system. **Please check your spam/junk mail** regularly to ensure that you receive all emails.

Information for priority candidates

A priority candidate is a University employee who is seeking redeployment because they have been advised that they are at risk of redundancy, or on grounds of ill-health/disability. Priority candidates are issued with a redeployment letter by their employing department(s).

If you are a priority candidate, please ensure that you attach your redeployment letter to your application (or email it to the contact address on the advert if the application form used for the vacancy does not allow attachments).

Should you experience any difficulties using the online application system, please email recruitment.support@admin.ox.ac.uk. Further help and support is available from www.ox.ac.uk/about_the_university/jobs/support/. To return to the online application at any stage, please go to: www.recruit.ox.ac.uk.

Please note that you will receive an automated email from our e-recruitment system to confirm receipt of your application. **Please check your spam/junk mail** if you do not receive this email.

Important information for candidates

Data Privacy

Please note that any personal data submitted to the University as part of the job application process will be processed in accordance with the GDPR and related UK data protection legislation. For further information, please see the University's Privacy Notice for Job Applicants at:

www.admin.ox.ac.uk/councilsec/compliance/gdpr/privacynotices/job/. The University's Policy on Data Protection is available at:
www.admin.ox.ac.uk/councilsec/compliance/gdpr/universitypolicyondataprotection/.

The University's policy on retirement

The University operates an Employer Justified Retirement Age (EJRA) for all academic posts and some academic-related posts. The University has adopted an EJRA of 30 September before the 69th birthday for all academic and academic-related staff in posts at **grade 8 and above**. The justification for this is explained at:

www.admin.ox.ac.uk/personnel/end/retirement/acrelretire8+/ .

For **existing** employees, any employment beyond the retirement age is subject to approval through the procedures:

www.admin.ox.ac.uk/personnel/end/retirement/acrelretire8+/.

There is no normal or fixed age at which staff in posts at **grades 1–7** have to retire. Staff at these grades may elect to retire in accordance with the rules of the applicable pension scheme, as may be amended from time to time.

Equality of Opportunity

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. No applicant or member of staff shall be discriminated against because of age, disability, gender reassignment, marriage or civil partnership, pregnancy or maternity, race, religion or belief, sex, or sexual orientation.

Benefits of working at the University

Employee benefits

University employees enjoy 38 days' paid holiday, generous pension schemes, travel discounts, and a variety of professional development opportunities. Our range of other employee benefits and discounts also includes free entry to the Botanic Gardens and University colleges, and discounts at University museums. See www.admin.ox.ac.uk/personnel/staffinfo/benefits.

University Club and sports facilities

Membership of the University Club is free for all University staff. The University Club offers social, sporting, and hospitality facilities. Staff can also use the University Sports Centre on Iffley Road at discounted rates, including a fitness centre, powerlifting room, and swimming pool. See www.club.ox.ac.uk and www.sport.ox.ac.uk/oxford-university-sports-facilities.

Information for staff new to Oxford

If you are relocating to Oxfordshire from overseas or elsewhere in the UK, the University's Welcome Service website includes practical information about settling in the area, including advice on relocation, accommodation, and local schools. See www.welcome.ox.ac.uk. There is also a visa loan scheme to cover the costs of UK visa applications for staff and their dependents. See www.admin.ox.ac.uk/personnel/permits/reimburse&loanscheme/.

Family-friendly benefits

With one of the most generous family leave schemes in the Higher Education sector, and a range of flexible working options, Oxford aims to be a family-friendly employer. We also subscribe to My Family Care, a service that provides practical advice and support for employees who have caring responsibilities. The service offers a free telephone advice line, and the ability to book emergency back-up care for children, adult dependents and elderly relatives. See www.admin.ox.ac.uk/personnel/staffinfo/benefits/family/mfc/.

Childcare

The University has excellent childcare services, including five University nurseries as well as University-supported places at many other private nurseries. For full details, including how to apply and the costs, see www.admin.ox.ac.uk/childcare/.

Disabled staff

We are committed to supporting members of staff with disabilities or long-term health conditions. For further details, including information about how to make contact, in confidence, with the University's Staff Disability Advisor, see www.admin.ox.ac.uk/eop/disab/staff.

Staff networks

The University has a number of staff networks including the Oxford Research Staff Society, BME staff network, LGBT+ staff network and a disabled staff network. You can find more information at www.admin.ox.ac.uk/eop/inpractice/networks/.

The University of Oxford Newcomers' Club

The University of Oxford Newcomers' Club is an organisation run by volunteers that aims to assist the partners of new staff settle into Oxford, and provides them with an opportunity to meet people and make connections in the local area. See www.newcomers.ox.ac.uk.