



UNIVERSITY OF  
CAMBRIDGE

# Research Computing Specialist

University Information Services

6 January 2025

Job Reference: VC44269



# Research Computing Specialist

**Salary:**

£41,421 - £55,295

**Contract:**

Permanent

**Location:**

Cambridge

**Faculty / Department:**

University Information Services

**Responsible to:**

Senior Research Computing Solutions Specialist

**Working Pattern:**

Full Time

The University of Cambridge has a Hybrid Working Policy that aims to enable as many staff as possible to work in a hybrid way if they so wish, whilst recognising that some roles will include tasks that can only be performed on

**Purpose of the role**

The role holder takes full technical responsibility for the design, delivery, support and continuous improvement of at least two areas of the departments IT infrastructure. By delivering against the IT plan, and leading on agreed technical projects, they enable the department to fulfil its goals in research, teaching and learning, as well as providing the tools to support the delivery of the department's administrative functions.

**Key responsibilities****Technical specialism**

Maintains knowledge of specific specialisms, provides detailed advice regarding their application and executes specialised tasks. The specialism can be any area of information or communication technology, technique, method, product or application area.

**Systems design**

Specifies and designs large or complex systems. Selects appropriate design standards, methods and tools, consistent with agreed enterprise and solution architectures and ensures they are applied effectively. Reviews others' systems designs to ensure selection of appropriate technology, efficient use of resources, and integration of multiple systems and technology. Contributes to policy for selection of architecture components.

Evaluates and undertakes impact analysis on major design options and assesses and manages associated risks. Ensures that the system design balances functional, service quality, security and systems management requirements.

**Project management**

Defines, documents and carries out small projects or sub-projects (typically less than six months, with limited budget, limited interdependency with other projects, and no significant strategic impact), alone or with a small team, actively participating in all phases. Identifies, assesses and manages risks to the success of the project. Agrees project approach with stakeholders, and prepares realistic plans (including quality, risk and communications plans) and tracks activities against the project schedule, managing stakeholder involvement as appropriate. Monitors costs, timescales and resources used, and takes action where these deviate from agreed tolerances. Ensures that own projects are formally closed and, where appropriate, subsequently reviewed, and that lessons learned are recorded.

**Database design**

Maintains and applies up to date, specialist knowledge of database concepts, object and data modelling techniques and design principles, and a detailed knowledge of the full range of database architectures, software and facilities available. Analyses data requirements, to establish, modify or maintain a data model.



## Key responsibilities continued

Takes account of specialist requirements (e.g. geocoding, for geographic information systems). Interprets the model into an appropriate database schema within set policies. Demonstrates, installs and commissions selected products.

## Programming/software development

Sets local or team-based standards for programming tools and techniques, including security guidelines, and the selection of appropriate development methods. Advises on application of standards and methods and ensures compliance. Takes technical responsibility for all stages and/or iterations in a software development project, providing method specific technical advice and guidance to project stakeholders. Assigns work packages, monitors performance and manages change control dynamically, to optimise productivity. Provides advice, guidance and assistance to less experienced colleagues as required.

## Application support

Maintains application support processes, and checks that all requests for support are dealt with according to agreed procedures. Uses application management software and tools to investigate issues, collect performance statistics and create reports.

## Database administration

Uses database management system software and tools, and knowledge of logical database schemata, to investigate problems and collect performance statistics and create reports. Carries out routine configuration/installation and reconfiguration of database and related products.

## Incident management

Prioritises and diagnoses incidents according to agreed procedures. Investigates causes of incidents and seeks resolution. Escalates unresolved incidents. Facilitates recovery, following resolution of incidents. Documents and closes resolved incidents according to agreed procedures.

## IT Infrastructure

Provides technical expertise to enable the correct application of operational procedures. Uses network management tools to determine network load and performance statistics. Contributes to the planning and implementation of maintenance and installation work, including building and management of systems and components in virtualised computing environments. Implements agreed network changes and maintenance routines. Identifies operational problems and contributes to their resolution, checking that they are managed in accordance with agreed standards and procedures. Provides reports and proposals for improvement, to specialists, users and managers.

## Network support

Maintains the network support process and checks that all requests for support are dealt with according to agreed procedures. Uses network management software and tools to investigate and diagnose network problems, collect performance statistics and create reports, working with users, other staff and suppliers as appropriate.

## Problem management

Initiates and monitors actions to investigate and resolve problems in systems, processes and services. Determines problem fixes/remedies. Assists with the implementation of agreed remedies and preventative measures.

## Performance Management

Supervises individuals and teams. Allocates routine tasks and/or project work. Provides direction, support and guidance as necessary, in line with individuals' skills and abilities. Monitors progress against agreed quality and performance criteria. Acts to facilitate effective working relationships between team members.

## Learning Delivery

Prepares or customises and delivers learning activities to a variety of audiences with a view to the transfer of business and/or technical skills and knowledge and the promotion of professional attitudes in order to facilitate learning and development.

Actively contributes to the University IT Community in order to share knowledge, best practice, and technical expertise.

# Person Specification

Criteria	Essential	Desirable
<b>Experience</b>		
Demonstrable experience of IT and management.	✓	
Managing technical activities and associated teams with evidence of managing for quality results.	✓	
Evidence of working at a tactical or operational level to deliver a technology change.	✓	
Evidence of developing and applying an understanding of a new technology to deliver business results.	✓	
Evidence of effectively sharing technical knowledge and skill to support the outputs and learning of colleagues and users.	✓	
<b>Skills</b>		
Expert knowledge of 1 or more IT domains: <ul style="list-style-type: none"> <li>○ IT Infrastructure: expertise in networks or storage or servers.</li> <li>○ Application Design: expertise in application development, or analysis and design (functional and technical.)</li> </ul>	✓	
Expertise in the following technologies:	✓	
○ Linux system administration	✓	
○ Scripting or programming in high level language such as Bash or Python	✓	
○ Automation and configuration management <ul style="list-style-type: none"> <li>▪ Ansible, Terraform or equivalents</li> </ul>	✓	
○ Version control e.g. git	✓	
○ HPC (Slurm, HPC software stacks)		✓
○ Cloud Technologies (Open Stack)		✓
○ HPC storage		✓
Ability to develop and maintain their own knowledge in their field.	✓	
Strong planning skills.	✓	
Strong ability to build relationships at all levels of the organisation.	✓	
Able to communicate effectively orally and in writing.	✓	
Highly proactive, persuasive and enthusiastic.	✓	
<b>Qualifications</b>		
Degree level qualification/Level 7 vocational qualification.	✓	

# Behavioural Attributes

This section summarises the behavioural attributes (or competencies) that we expect the role holder to be able to demonstrate, at what level and whether this is an essential or desirable requirement. Full definitions are at: <https://www.hr.admin.cam.ac.uk/policies-procedures/behavioural-attributes>

Please review these and provide specific examples in your application of how you have demonstrated these attributes in your work, education or other experience. It will assist your application if you explain the situation, what you did and what the outcomes were.

Attribute	Level
Valuing Diversity	A
Achieving Results	B
Communication	B
Innovation and Change	B
Negotiating and Influencing	C
People Development	B
Relationship Building	B
Strategic Focus	B

# Professional Services Values

Developed by professional services staff, our values underpin everything we do. By living the values in the work we do, we hope to foster an environment where staff feel empowered. The values encourage staff to; work together and share skills to create a sense of community, act with integrity, take an inclusive and fair approach and develop honest and open relationships that are underpinned by our shared values. We encourage applicants to consider these values within their application.



# University Information Services

**The UIS provides the digital infrastructure at the heart of the University's world-leading education and research.**

For example, our high performance computing team has developed the UK's fastest academic computer and is supporting groundbreaking medical, engineering and astronomy research. Our networks team runs Europe's biggest privately owned ultra-high speed fibre optic network, connecting researchers, students and other organisations across Cambridge and beyond. And, the University's finance, HR and student administration rely on our business systems.

The University also has a bold ambition to use digitalisation to transform education and research. The UIS's team of developers, designers, testers, analysts and support staff is leading this exciting work. Our work ensures Cambridge continues to be one of the world's top universities.

The University of Cambridge consists of over 100 institutions (Departments, Faculties and Schools) and employs around 12,000 staff. The Director of Information Services leads a University Information Services function which positively adds value to the University. For the delivery of a world – class computing service for all of the relevant stakeholder communities.

As a customer focussed organisation the purpose of UIS is to provide business information services that underpin the critical management processes used across the collegiate University in research, teaching and administration.

The UIS works strategically with Schools, Faculties, Departments, Colleges and other institutions, in planning and delivering the future information service requirements of the University, progressively improving business processes, capabilities and information solutions that meet business needs.



# Terms of Appointment

## Tenure and probation

Appointment will be made on a permanent basis. Appointments will be subject to satisfactory completion of a nine month probationary period.

## Hours of Work and Working Pattern

The hours of work for the position are full-time, Monday to Friday.

## Pension

You will automatically be enrolled to become a member of USS (Universities Superannuation Scheme) – a hybrid pension scheme. For further information please visit: [www.pensions.admin.cam.ac.uk/](http://www.pensions.admin.cam.ac.uk/).

## Annual leave

Full time employees are entitled to annual paid leave of 41 days inclusive of public holidays. For new part-time employees, annual leave will be pro rata'd based on days worked.

## General information

### Pre-employment checks

#### Right to work in the UK

We have a legal responsibility to ensure that you have the right to work in the UK before you can start working for us. If you do not have the right to work in the UK already, any offer of employment we make to you will be conditional upon you gaining it.

**Health declaration** Once an offer of employment has been made the successful candidate will be required to complete a work health declaration form.

### Qualifications

The person specification for this position lists qualifications that are essential and/or desirable. Please note that if you are offered the post you will be asked to provide your relevant original certificates of these qualifications.

### References

Offers of appointment will be subject to the receipt of satisfactory references.

### Screening Checks

This role requires a basic disclosure check and a security check. Any offer of employment we make to you will be conditional upon the satisfactory completion of these checks. Whether an outcome is satisfactory will be determined by the University.

### Equality and Diversity

We particularly encourage women and /or candidates from a Black, Asian and Minority Ethnic background to apply for this vacancy as they are currently under-represented at this level within our department.

### Information if you have a disability

The University welcomes applications from individuals with disabilities. We are committed to ensuring fair treatment throughout the recruitment process. We will make adjustments to enable applicants to compete to the best of their ability wherever it is reasonable to do so and, if successful, to assist them during their employment.

Information for disabled applicants is available at <http://www.admin.cam.ac.uk/offices/hr/staff/disabled/>

We encourage you to declare any disability that you may have, and any reasonable adjustments that you may require, in the section provided for this purpose in the application form. This will enable us to accommodate your needs throughout the process as required. However, applicants and employees may declare a disability at any time.

If you prefer to discuss any special arrangements connected with a disability, please contact, the Department Administrator, who is responsible for recruitment to this position.

# The University

The University of Cambridge is consistently ranked one of the best universities in the world, achieving academic excellence through its Faculties, Departments and other Institutions, together with the 31 Colleges.

The University is renowned for its record of discovery and innovation. It is one of the great institutions, with a regional, national and global reach, attracting the very best and brightest minds. Our staff and students shape the world around us for the better: we attract and partner with like-minded people.

Whether contributing to the development of new anti-cancer drugs, adding to the understanding of how black holes are formed, revolutionising the study of ancient settlements, convening academic expertise to offer solutions to the climate crisis, or analysing public attitudes towards democracy around the world, the University's research is remarkable in its breadth, quality and impact. The University also sits at the heart of Europe's largest technology cluster and has catalysed more than 1,500 high-tech companies. And yet what inspires our 24,000 students and 13,000 staff is not what has already been achieved, but what is possible in the future.

The education and experience of our students, based on a partnership between the University's academic Departments and Faculties and the 31 Colleges, is second to none. Every student is a member of one of the Colleges, each a community of students, academics and staff drawn from across the University's comprehensive range of subject areas.





The University is a self-governing community, with a system for decision-making that provides a high degree of accountability and transparency to its members. Each Department and Faculty is part of one of six academic Schools, but each of them, and each individual academic, has a great deal of autonomy. The Colleges are independent and self-governing, working in a symbiotic relationship with the University.

The University has a number of Institutions that are independent of any Faculty or Department and are not part of the academic Schools. These include the Institute of Continuing Education (which provides high-quality education to adults throughout their lives), the Fitzwilliam Museum, Kettle's Yard (an historic house and gallery that holds important collections of modern art) and the University Library. In addition to their diverse contributions to University and public life, these non-School Institutions are also important centres of teaching and research.

Cambridge University Press & Assessment provides academic publishing, examinations and learning materials worldwide, supporting the dissemination of research, academic development at school and in higher education, and international student mobility. Legally, the Press & Assessment is a department of the University. It provides very important funds to invest in the academic purposes of the University.

The University has made truly remarkable contributions to the sum of human understanding, with breakthrough ideas and discoveries that have changed the way we understand ourselves, our planet, and the universe around us. Yet the global and national contexts in which it operates are fast-changing and increasingly filled with uncertainty. In a world that is becoming - politically, economically, socially, and technologically – ever more interconnected but even less equal, the University's mission – “to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence” – has never been more relevant.



# About Us

**The University is one of the world's leading academic centres. It comprises 150 faculties and departments, together with a central administration and other institutions. Our institutions, museums and collections are a world-class resource for researchers, students and members of the public representing one of the country's highest concentrations of internationally important collections.**

The University has an annual income of £2 billion. Research income, won competitively from the UK Research Councils, the European Union (EU), major charities and industry, exceeds £500 million per annum and continues to grow.

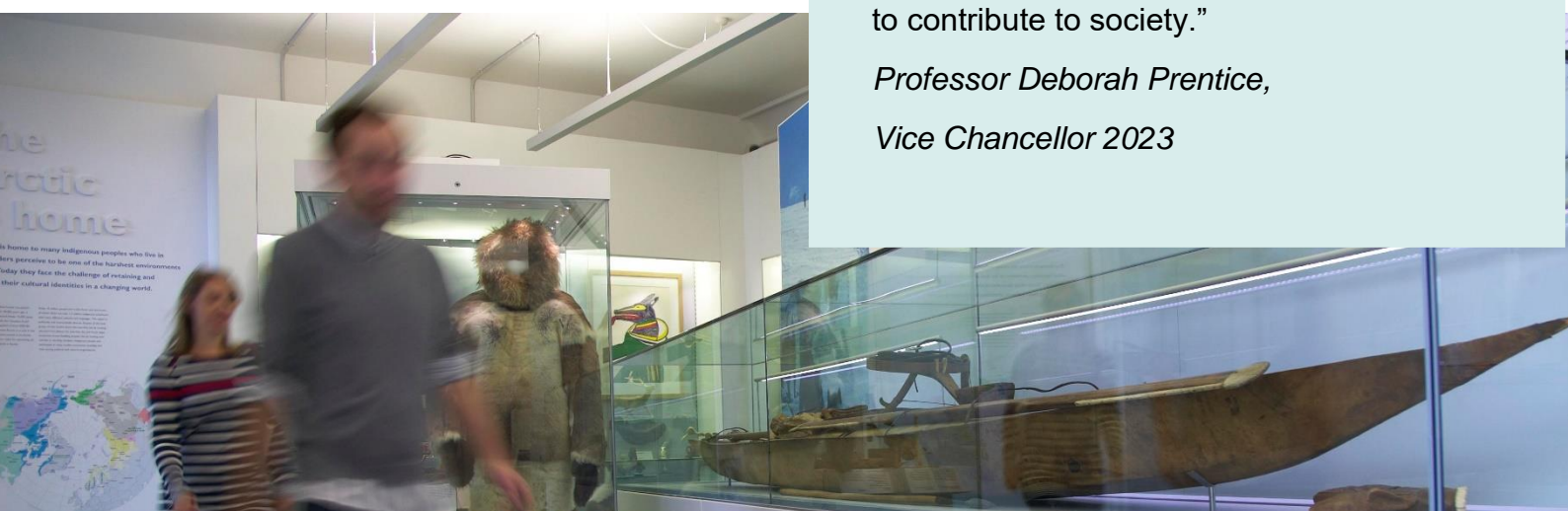
The Colleges and the University remain committed to admitting the best students regardless of their background and to investing considerable resources both in widening access and financial support. The 31 Colleges are self-governing, separate legal entities which appoint their own staff. Many academic staff are invited to join a College as a Teaching Fellow, which provides a further social and intellectual dimension. The Colleges admit undergraduate students, provide student accommodation and pastoral support and deliver small group teaching for undergraduates.

The University awards degrees and its faculties and departments provide lectures and seminars for students and determine the syllabi for teaching.

Our instinct for seeking out excellence and setting up enduring and mutually beneficial collaborations has led us to establish strategic partnerships across the globe. Whether it is the successful Cambridge-Africa Programme involving universities in Ghana, Uganda and elsewhere on the African continent; or the close association with the government of India to pursue new research in crop science; or the creation, with Germany's Max Planck Institutes, of a Cambridge-based centre for the study of ethics, human economy and social change – international partnerships are now an inextricable part of the University's make-up.

“Through its outstanding education, research and innovation, the University of Cambridge has made – and continues to make – a lasting contribution to human knowledge and is flourishing. By working at the University of Cambridge, you will be joining a vibrant community of students, scholars and professional services staff committed to supporting and enhancing the University's mission to contribute to society.”

*Professor Deborah Prentice,  
Vice Chancellor 2023*



# Working at the University

**Working at Cambridge you will join a diverse, talented and innovative community, with more than 24,000 students and over 13,000 staff from all walks of life and corners of the world.**

The University continually explores strategies to attract and retain the best people. It is committed to supporting its staff to achieve their best. We are a fair, diverse and inclusive society and we believe our staff are our greatest asset. There is strong commitment to developing institutional leadership and supporting and encouraging staff development at all levels.

The University offers a variety of roles including academic, research, professional, managerial and support roles. We also offer extensive benefits and excellent learning opportunities within a stimulating working environment.

## Equality, Diversity and Inclusion

The University has built its excellence on the diversity of its staff and student community. We aim to be a leader in fostering equality and inclusion, and in promoting respect and a sense of belonging for all. We encourage applications from all sections of society. All appointments are made on the basis of merit. We have an Equal Opportunities Policy, along with a range of diversity groups, including the Women's Staff Network, Race Equality Network and LGBT+ Staff Network. More details are available here:

<http://www.equality.admin.cam.ac.uk/>

The University's estate is undergoing the most significant transformation in its history. Cambridge has been able to create a science and technology campus to the west of the city centre, and is expanding further to the north west of Cambridge including investing in affordable homes for University key workers and community facilities. Even with their continued development, the University remains within walking or cycling distance across the campus. The University is a major partner on the Cambridge Biomedical Campus and continues to redevelop its historic city centre sites demonstrating a clear determination to ensure that we can offer the best facilities and opportunities for our staff and students.



The University has a bronze Race Equality Charter award, with a framework for improving the representation, progression and success of minority ethnic staff and students within higher education. Furthermore, the University's silver Athena swan award recognises and celebrates good practice in recruiting, retaining and promoting gender equality.

## Living in Cambridge

# What Cambridge can offer

**We offer a comprehensive reward package to attract, motivate and retain high performing staff at all levels and in all areas of work.**

The University offers a wide range of competitive benefits, from family leave entitlement, to shopping and travel discount schemes. Our generous annual leave package contributes to the positive wellbeing of our University employees. Sabbatical leave enables academics to focus on research and scholarship, whilst still maintaining their full salary. The University also has a [career break scheme](#) for academic and academic-related staff, with additional flexible working policies for all other staff.

## Pay and benefits

The University salary structure includes automatic service-related pay progression in many of its grades and an annual cost of living increase. In addition to this, employees are rewarded for outstanding contribution through a number of regular pay progression schemes. The University offers attractive pensions schemes for employees, with an additional benefit of a salary exchange arrangement providing tax and national insurance savings.



## CAMbens employee benefits

The University offers employees a wide range of competitive benefits, known as CAMbens. CAMbens offers something for everyone across a range of categories, including:

- Financial Benefits, including shopping discounts (both local and national) and a Payroll Giving scheme;
- Relocation and Accommodation Benefits, including relocation assistance and interest-free Rental Deposit Loans;
- Travel Benefits, including Cycle to Work, discounts on train season tickets and interest-free Travel to Work loans;
- Family Friendly and Lifestyle Benefits, including support with childcare and family friendly policies;
- Health and Wellbeing Benefits, including a University Staff Counselling Service, discounts at the University Sports Centre, and other local gyms, and healthcare schemes.



# What Cambridge can offer

## Family-friendly policies

The University recognises the importance of supporting its staff. We have a range of family-friendly policies to aid employees' work-life balance including a generous maternity, adoption and shared parental leave entitlement of 26 weeks' full pay, and paid emergency leave for parents and carers.

Other family-friendly support includes:

Our highly regarded workplace nurseries, a childcare salary exchange scheme and a high-quality holiday Playscheme are available to help support University employees with caring responsibilities (subject to demand and qualifying criteria). Further childcare information can be found here:

<https://www.childcare.admin.cam.ac.uk/>

The Newcomers and Visiting Scholars Group (<https://www.nvs.admin.cam.ac.uk/>) is an organisation within the University that welcomes the partners and families of visiting scholars and new members of the University. Run by volunteers, the group offers opportunities to visit interesting Cambridge venues, learn about the community, take part in social events and gain local knowledge while developing a strong support network of both residents and other

newcomers.

## Your wellbeing

The University's Sport Centre, Counselling Services and Occupational Health are just some of the support services available to University employees to promote their physical and mental wellbeing. The University delivers The Festival of Wellbeing annually, which is a programme of stimulating talks and activities, which aim to promote wellbeing and good mental and physical health. The University also hosts the [Cambridge Festival](#), which is a great opportunity to get your first taste of public engagement, through volunteering, supporting hands-on activities or proposing a talk.

## Development opportunities

We support new employees to settle in through various activities as well as supporting their professional and career development on an ongoing basis. Our Personal and Professional Development (PPD) team provide development opportunities for all University employees, including face-to-face sessions, online learning modules and webinars. All employees also have unlimited access to LinkedIn Learning to support their development. Both new and existing employees can undertake funded Apprenticeships, which lead to a range of vocational and professional qualifications. We offer reduced staff fees for University of Cambridge graduate courses and the opportunity to attend lectures and seminars held by University departments and institutions. A range of University training providers also offer specialist learning and development in their own areas e.g. teaching and learning, digital literacy, finance, health



# How to apply

Applications should be submitted online via the University of Cambridge jobs page [www.jobs.cam.ac.uk](http://www.jobs.cam.ac.uk) by clicking “Apply online” in the job advert. You will need an email address to register for our online system.

Conversations about flexible working are encouraged at the University of Cambridge. Please feel free to discuss flexibility prior to applying (using the contact information below) or at interview if your application is successful.

Informal enquiries are welcomed and should be directed to [recruitment@uis.cam.ac.uk](mailto:recruitment@uis.cam.ac.uk) in the first instance, quoting the vacancy reference number VC44269.

The closing date for applications is 6 January 2025.

