

# Principal Application Specialist

University Information Services

Closing Date: 7 June 2024

Job Reference: VC41600



# Principal Application Specialist

**Salary:**

£45,585 - £57,696

**Contract:**

Permanent

**Location:**

Cambridge/hybrid remote

**Division:**

Information Services

**Responsible to:**

Finance Systems Team Lead

**Working Pattern:**

Full Time

**Purpose of the role**

To be a subject matter expert in the enterprise software applications within assigned business areas.

To lead on the implementation, development and support of enterprise software applications for assigned business areas in operational and project settings.

To review business requirements and use these to design and develop suitable technical software solutions using a wide variety of methods, software products and software tools.

To oversee testing of completed software, e.g. through user training, and the production of documentation.

To migrate fixes, patches and other developments between development environments in accordance with relevant change control processes.

To take a lead on the 2<sup>nd</sup> and 3<sup>rd</sup> line support of operational IT services for the department, including the solving of complex technical issues, and the analysis and application of security patches and upgrades.

To deliver transformative change in the shape of improved efficiency, use of automation and reduction of technical debt.

**Key responsibilities****Specialist advice (5)**

- Provides definitive and expert advice in their specialist area.
- Actively maintains recognised expert level knowledge in one or more identifiable specialisms.
- Oversees the provision of specialist advice by others. Consolidates expertise from multiple sources, including third-party experts, to provide coherent advice to further organisational objectives.
- Supports and promotes the development and sharing of specialist knowledge within the organisation.

**Programming/software development (5)**

- Takes technical responsibility across all stages and iterations of software development.
- Plans and drives software construction activities. Adopts and adapts appropriate software development methods, tools and techniques.

- Measures and monitors applications of project/team standards for software construction, including software security.
- Contributes to the development of organisational policies, standards, and guidelines for software development.

**Application support (5)**

- Ensures that all requests for support are dealt with according to set standards and procedures.
- Drafts and maintains procedures and documentation for applications support.
- Manages application enhancements to improve business performance.
- Advises on application security, licensing, upgrades, backups, and disaster recovery needs.

**Software design (5)**

- Specifies and designs large or complex software applications, components and modules.
- Adopts and adapts software design methods, tools and techniques. Undertakes impact analysis on major design options, makes recommendations and assesses and manages associated risks. Specifies prototypes/simulations to enable informed decision-making.
- Evaluates software designs to ensure adherence to standards and identifies corrective action. Ensures that the software design balances functional, quality, security and systems management requirements.
- Contributes to the development of organisational software design and architecture policies and standards.

**Systems design (5)**

- Designs large or complex systems and undertakes impact analysis on major design options and trade-offs.
- Ensures that the system design balances functional and non-functional requirements.
- Reviews systems designs and ensures that appropriate methods, tools and techniques are applied effectively. Makes recommendations and assesses and manages associated risks.
- Adopts and adapts system design methods, tools and techniques. Contributes to development of system design policies, standards and selection of architecture components.

**Key responsibilities...continued****Database design (5)**

- Provides specialist expertise in the design characteristics of database management systems or data warehouse products/services.
- Provides expert guidance in the selection, provision and use of database and data warehouse architectures, software and facilities.
- Ensures that physical database design policy supports transactional data requirements for performance and availability.
- Ensures that data warehouse design policy supports demands for business intelligence and data analytics.

**Data modelling and design (5)**

- Sets standards for data modelling and design tools and techniques, advises on their application and ensures compliance.
- Manages the investigation of enterprise data requirements based upon a detailed understanding of information requirements.
- Coordinates the application of analysis, design and modelling techniques to establish, modify or maintain data structures and their associated components.
- Manages the iteration, review and maintenance of data requirements and data models.

**System software (5)**

- Ensures that system software is provisioned and configured to facilitate the achievement of service objectives.
- Evaluates new system software and recommends adoption if appropriate. Plans the provisioning and testing of new versions of system software.
- Investigates and coordinates the resolution of potential and actual service problems.
- Ensures that operational procedures and diagnostics for system software are current, accessible and well understood.

**Incident management (5)**

- Develops, maintains and tests incident management procedures in agreement with service owners.
- Investigates escalated, non-routine and high-impact incidents to responsible service owners and seeks resolution.
- Facilitates recovery, following resolution of incidents. Ensures that resolved incidents are properly documented and closed.
- Analyses causes of incidents, and informs service owners to minimise probability of recurrence, and contributes to service improvement. Analyses metrics and reports on the performance of the incident management process.

**Problem management (5)**

- Ensures that appropriate action is taken to anticipate, investigate and resolve problems in systems and services.
- Ensures that such problems are fully documented within the relevant reporting systems.
- Enables development of problem solutions. Coordinates the implementation of agreed remedies and preventative measures.
- Analyses patterns and trends and improves problem management processes.

**Release and deployment (5)**

- Leads the assessment, analysis, planning and design of release packages, including assessment of risk.

- Liaises with business and technology teams on release scheduling and communication of progress. Conducts post-release reviews.
- Ensures that release processes and procedures are applied and that releases can be rolled back as needed.
- Identifies, evaluates and manages the adoption of appropriate release and deployment techniques, processes and automation tools.

**Systems integration and build (5)**

- Plans and drives activities to develop organisational systems integration and build capabilities including automation and continuous integration.
- Identifies, evaluates and manages the adoption of tools, techniques and processes to create a robust integration framework. Provides authoritative advice and guidance on any aspect of systems integration.
- Leads integration work in line with the agreed system and service design. Assesses risks and takes preventative action. Measures and monitors applications of standards.
- Contributes to the development of organisational policies, standards, and guidelines for systems integration.

**User experience design (4)**

- Selects appropriate tools, methods and design patterns to design user interactions with and experiences of a product, system or service.
- Translates concepts into outputs and prototypes and captures user feedback or evaluation to improve designs.
- Evaluates alternative design options and recommends designs taking into account performance, security, usability and accessibility requirements.
- Interprets and follows visual design and branding guidelines to create a consistent and impactful user experience.

**Performance management (5)**

- Forms, maintains and leads workgroups and individuals to achieve organisational objectives.
- Determines and delegates objectives and task responsibilities to individuals or teams — including people management responsibilities as appropriate. Sets the quality, performance and capability targets in line with organisational goals. Monitors performance and working relationships and provides effective feedback to address individual issues.
- Encourages individual development of skills and capabilities in line with team and personal goals. Facilitates the development of individuals by adjusting workload, targets, and team capacity.
- Plays an active role in formal organisational processes such recruitment, reward, promotion and disciplinary procedures.

**Learning Delivery (4)**

- Prepares and delivers learning activities for a variety of audiences to meet learning objectives.
- Contributes to the design and selection of appropriate environments. Effectively uses a broad range of learning delivery techniques to enable learners to develop skills, capability, techniques and required knowledge. Develops and updates examples and case study materials.
- Observes and evaluates learners performing practical activities and work. Advises and assists learners to enable the delivery of learning objectives. Tailors the approach to learning delivery to enhance the experience of learners.
- Provides detailed instruction as necessary and responds to detailed questions in own area of specialisation. Adapts materials to meet the needs of learners.

**Networking**

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

# Person Specification

Criteria	Essential	Desirable
<b>Experience</b>		
Evidence of contributing to the development of strategic technical plans which deliver department wide change	✓	
Evidence of acquiring an understanding of and applying the potential of new technology to deliver business results.	✓	
Evidence of effectively sharing technical knowledge and skill to increase the available pool of skilled staff.	✓	
Experienced technical resource with evidence of co-ordinating in-house and virtual teams for quality results.	✓	
Evidence of working at a strategic level in an organisation or department to create and deliver department wide change	✓	
Evidence of leading successful technical change in operational and project settings using various methodologies.	✓	
Demonstrable experience of IT, coaching and mentoring others.	✓	
<b>Skills</b>		
Expertise in several relevant programming languages used in the development of enterprise systems.	✓	
Expert knowledge of front-end/web development tools and techniques.	✓	
Expert knowledge of system design and integration.	✓	
Expert knowledge of database design, SQL and performance tuning.	✓	
Knowledge of user experience and accessibility concepts		✓
Demonstrable knowledge of approaches to data and system security.	✓	
Practical understanding of ITIL incident and problem management concepts.		✓
Expert knowledge of building complex system integrations	✓	
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.	✓	
Ability to develop and maintain their own knowledge in their field.	✓	
<b>Qualifications</b>		
Degree/postgraduate level education/ level 7 vocational qualification or equivalent experience.	✓	

# 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>

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

# 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 9 month probationary period.

## Hours of Work and Working Pattern

The hours of work for the position are full-time.

We welcome applications from individuals who wish to be considered for part-time working or other flexible working arrangements.

## Pension

You will automatically be enrolled to become a member of USS (Universities Superannuation Scheme) – a defined benefits 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.

### Equality and Diversity

We particularly encourage women and 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 institution.

## 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 one of the world's oldest and most successful universities. We are a renowned centre for research, education, and scholarship that makes a significant contribution to society. The University is consistently ranked amongst the top universities in the world. Our affiliates have won more Nobel Prizes than any other University.**

Our sustained pursuit of academic excellence is built on a long history of first-class teaching and research within a distinctive collegiate system. For eight centuries our ideas and innovations have shaped the world. Our principal goal is to remain one of the world's leading universities in an increasingly competitive global higher education sector. Today the University of Cambridge is at the centre of a cluster of over 4,300 businesses employing 58,000 people.

Our capital investment projects include the West Cambridge site, the North West Cambridge development and the growth of the Biomedical Campus in the south of the city. The North West Cambridge development includes the opening of a primary school – the first in the UK to be managed by a University. So we are deeply embedded in, and committed to serving, our local community. These are all conspicuous signs of a University that is not only adapting to new needs, but also anticipating the future.

Our mission is to contribute to society through the pursuit of education, learning, and research at the highest international levels of excellence. Our core values are:

- freedom of thought and expression; and
- freedom from discrimination.





# 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 students, provide student accommodation and deliver small group teaching.

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

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.

“Cambridge graduates and researchers have made – and continue to make – a colossal contribution to human knowledge and the understanding of the world around us. Their work touches on the lives and livelihoods of everyone from patients diagnosed with life-threatening diseases, to residents of areas critically affected by climate change, to children growing up in conflict zones. It has a lasting impact on our society, our economy and our culture: the world is truly a better place thanks to their efforts.”

*Stephen Toope, Vice Chancellor 2019*



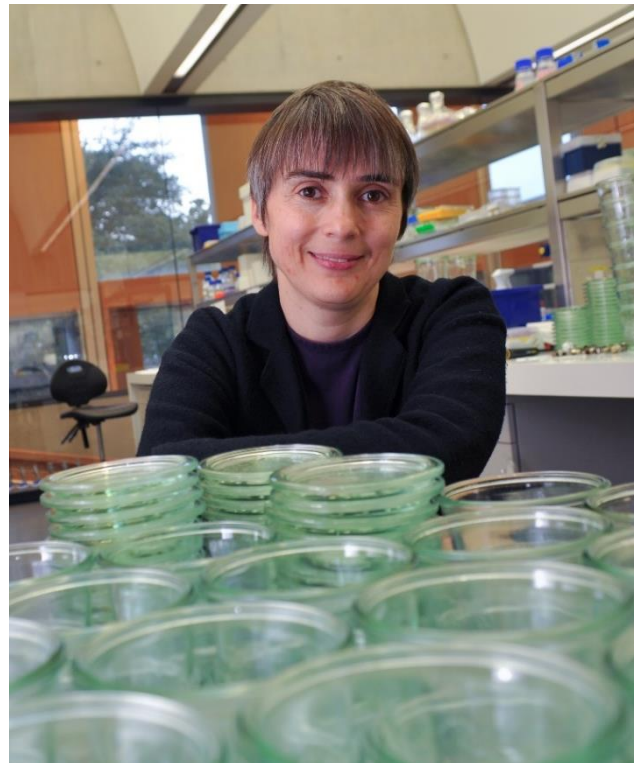
# Working at the University

**Working at Cambridge you will join a diverse, talented and innovative community, with more than 18,000 students and over 16,000 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.

We offer 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.

The University's estate is undergoing the most significant transformation in its history. Cambridge has been able to create a new science and technology campus to the west of the city centre, and is now expanding further to the north west of Cambridge including investing in affordable homes for University key workers and community facilities. Even with our 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 we continue to redevelop our historic city centre sites demonstrating our determination to ensure that we can offer the best facilities and opportunities for our staff and students.



## Equality & diversity

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 networks for women, black and minority ethnic and lesbian, gay, bisexual and transgender staff. More details are available here: <http://www.equality.admin.cam.ac.uk/>

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

# Living in Cambridge

**Cambridge is rich in cultural diversity. From beautiful University and College buildings, museums and art galleries, quaint gardens and punts on the River Cam, to a vibrant restaurant and café scene, our employees are surrounded by the wonderful features of this unique city.**

You can find a wide-range of high street shops and 3 shopping centres, with independent alternatives at the historic market and nestled within the passageways in the city centre. You will find a cinema, bowling alley, a nightclub and various live performances At the Cambridge Leisure Park, with further entertainment options at the Corn Exchange, Arts Theatre and the ADC Theatre. Further information can be found on the Visit Cambridge website.

If you prefer the faster pace of life, London is a 45-minute train journey away. For those travelling from overseas, Stansted Airport is just 45 minutes away and Heathrow Airport under 2 hours away. The University is a short distance from a host of other attractions such as Ely Cathedral, Newmarket Races and various wildlife parks and stately homes. Cambridge is also within easy reach of the beautiful Broads and coastlines of Norfolk and Suffolk.

## Relocation Support

The University recognises the importance of helping individuals to move and settle into a new area. We provide support and guidance to those relocating internationally or domestically to take up a post at the University of Cambridge, liaising with other University offices and selected partners to ensure comprehensive relocation support is available. This includes: accommodation, childcare, schools, banking, immigration and transport. If you would like further information, please visit <https://www.accommodation.cam.ac.uk/relocation>. The Shared Equity Scheme and the Reimbursement of Relocation Expenses Scheme provide financial assistance to qualifying new members of staff with the costs of relocating to Cambridge.

## Accommodation Service

The University Accommodation Service helps staff, students and visiting scholars who are affiliated to the University in their search for suitable accommodation in Cambridge. The dedicated accommodation team can provide access to a wide range of University-owned furnished and unfurnished properties, and has a database of private sector accommodation available for short and long-term lets. For further information and to register with this free service please visit <https://www.accommodation.cam.ac.uk/>



# 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. Payroll giving is also a simple, tax-efficient way for employees to make monthly donations to charity.



## CAMbens employee benefits

We offer a CAMbens scheme for University employees, providing access to online and in-store shopping discounts and cashback. With more than 2,000 participating retailers, employees can save money on a wide range of household expenses, from groceries and clothes, to holidays and insurance and much more. A range of local discounts are also available, helping employees to save money whilst also supporting local Cambridge businesses and a CAMbens Cycle to Work salary sacrifice scheme is also available, which enables employees to save money on transport costs. A 10% discount rate on the purchase of train season tickets, bulk buy tickets and an interest free travel to work loan are also available for staff of the University.



# 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 18 weeks full pay and emergency family care support via My Family Care.

Other family-friendly support includes:

Our highly regarded workplace nurseries, a childcare salary exchange scheme and a high quality holiday Playscheme may be 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 is an organisation within the University run by volunteers whose aim is to help newly arrived wives, husbands, partners and families of Visiting Scholars and members of the University to settle in Cambridge and give them an opportunity to meet local people. The Office of Postdoctoral Affairs supports the postdoctoral community within Cambridge. Further details are available here: <https://www.opda.cam.ac.uk/>

## 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. There are many societies in Cambridge catering for almost every taste and interest. Whether you want to take part in a sport, participate in music or drama, pursue a hobby, or join a political group, you will almost certainly find that a society exists for this purpose. The University also hosts the [Cambridge Science Festival](#) and [Cambridge Festival of Ideas](#), as well as [Open Cambridge](#) weekend, which together attract over 50,000 visitors per year. The festivals are 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. The encouragement of career development for all staff is one of the University's values and we put this into practice through various services and initiatives. Our Personal and Professional Development Department provides development opportunities and courses for all University employees. These include face-to-face sessions, online learning modules and webinars. Employees may also apply for financial support to undertake training that will lead to a qualification. 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. The CareerStart@Cam programme also supports employees in assistant staff roles who do not hold higher education qualifications to develop their skills, experience and qualifications.



# 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:  
Douglas Youngson, Finance System Team Lead:

**Email:** [Doug.Youngson@uis.cam.ac.uk](mailto:Doug.Youngson@uis.cam.ac.uk).

If you have any queries regarding the application process please contact [adminoffice@uis.cam.ac.uk](mailto:adminoffice@uis.cam.ac.uk), quoting vacancy reference **VC41600**.

The closing date for applications is: 7 June 2024