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| **University of St Andrews**  **School of Computer Science**  **Lecturers – AC2345RMR**  **Further Particulars for Applicants** |

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| **School of Computer Science** |

### **The School**

The School of Computer Science is responsible for all teaching and research in Computer Science within the University. We awarded our first degrees in 1971, and since then we have been known both for our high-quality graduates and our research excellence. The School's student numbers of around 440 taught and 55 research postgraduate FTEs give a staff/student ratio of about 1:13. We pride ourselves on delivering courses that combine mathematical and analytical rigour with practical experience in a friendly and personal learning environment, and on our excellent equipment provision. We have a track record in attaining exceptionally high levels of student satisfaction and employability, together with excellent equipment have led to the School of Computer Science placing 1st in the UK in the 2021 National Student Survey (with a 96.6% satisfaction rate), Guardian, Times and Sunday Times Good University Guides and highly in other league tables. In the 2021 REF 90% of our research activity was identified as “internationally excellent” or “internationally leading.

For more information, see our website [http://www.cs.st-andrews.ac.uk](http://www.cs.st-andrews.ac.uk/)

**Growth strategy**

The School is in a period of growth, fuelled by increasing research ambitions and the increasing popularity of our undergraduate and graduate programmes with high-quality applicants. We want to invest in our capacities to target new and emerging areas of Computer Science and its applications, aiming rapidly to achieve the same level of excellence as we have in our existing research areas. We expect that this includes excellence in understanding the basic underlying principles (science goals); in the development of technologies and techniques (engineering goals); in the application of these discoveries and developments to society (impact goals); and in their communication to current and future practitioners (teaching goals).

**Research**

We are seeking individuals who both complement and extend the activities of our existing research groups, but equally we are interested in pedagogical research.

The School’s research activity is broadly organised into five groups, with collaboration between groups and with researchers outside the School being involved. It is increasingly the norm for staff to belong to more than one group. At present the groups are:

* **Artificial intelligence** – including constraint programming, computational algebra, machine learning, natural language processing, image processing, and robotics.
* **Biomedical Modelling and Digital Health –** including computational models of cancer treatment and infectious diseases, and software support for medical devices and data analytics.
* **Computer Systems** – including networking, distributed and autonomic systems, middleware, wireless and sensor networks, data analytics, data integration, complex and adaptive systems, cloud systems, and software engineering.
* **Human Computer Interaction –** including tangible interaction, design research, pervasive and ubiquitous computing, input and output technologies, natural language processing, distributed learning environments, intelligent interactive systems, and visualisation.
* **Programming Language Technologies** – including functional programming, parallel systems, and compiler technology.
* **Research Software** - focused on interdisciplinary computational research and development of underpinning research software, training in scientific computing, and studies in research software.

Our research is supported by funding from a range of bodies including the Engineering and Physical Sciences Research Council (EPSRC), the European Commission, the Royal Society, the Data Lab and CENSIS Innovation Centres, and the broader software industry.

We are part of SICSA, the Scottish Informatics and Computer Science Alliance which is a collaboration of Scottish Universities whose goal is to develop and extend Scotland’s position as a world leader in informatics and Computer Science research and education. The SICSA research themes of: Networking & Systems; Cyber Security; Human-Computer Interaction; Theory, Modelling & Computation; and Data Science have been heavily influenced by research in the School.

**Teaching**

The School’s main undergraduate programme leads to a BSc (4 years) or MSci (5 years) in Computer Science, or to one of a wide range of joint honours offerings. Exceptionally well-qualified entrants can go directly into the second year of these programmes. Approximately 210 students entered our taught programmes in 2021.

We also offer a range of taught postgraduate programmes leading to MSc degrees. For students with a strong undergraduate Computer Science background we offer the MSc in Computer Science with specialisations in HCI, Software Engineering, Data-Intensive Analysis, and Artificial Intelligence. For students with a background in other subjects, we offer MSc programmes in IT with Management, IT and Computing, and IT. All these programmes share many modules, with specialist modules core to one course typically available as options on the others. Many of these modules are also available as options to final year undergraduate students and as part of the initial year of advanced training included in our MPhil and EngD research degrees.

Our curriculum is constantly evolving in response to changes in the subject, in its application and in the background of our students, as well as to take advantage of developments in learning and teaching technology. In making these changes, we are careful to maintain our distinctive combination of rigorous science and hands-on experience, and to foster the welcoming and personal environment allowed by our relatively small size. We also encourage diversity in teaching and assessment formats, and our delivery includes traditional one-hour lectures; supervised example classes; longer classes including both lecture and discussion time; supervised and unsupervised group work; “flipped” classrooms with video resources; student-led presentations and discussions; individual and group projects and peer instruction. In the early years we make extensive use of small-group tutorial-based teaching, often led by senior staff. Details can be found at <http://www.cs.st-andrews.ac.uk/prospective-ug/courses> and <http://www.cs.st-andrews.ac.uk/pg>

The school has a population of 50 research students, mainly enrolled on our PhD programme. In 2016, we launched the first EngD programme in Computer Science in Scotland, and welcomed to our first EngD students in the same year, supported by The Data Lab and industry. We also offer a shorter MPhil programme that combines a year of taught courses with a one year research project.

**Support for New Lecturers**

Academic staff appointed to their first teaching position in St Andrews receive a number of forms of support to help them get started in their careers: a reduced teaching load (75%) during their first two years in post; a personal budget for research travel; a budget for appropriate high-end equipment; a range of mentoring and training, including the very highly regarded SICSA New Lecturers course; and personal mentoring and career development aimed at getting started as an independent researcher with a suitable team.

**The job description for this role is attached below.**

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| **Job Description** |

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| Job Title: Lecturer  School/Unit: School of Computer Science  Reporting to: Head of School  Job Family: Academic (Teaching & Research) or Academic (Teaching) | Working Hours: Full time/36.25 hours per week  Grade/Salary Range: Grade 7/£43,414 - £53,353 per annum  Reference No: AC2345RMR  Start Date: June 2023  Interview date: 6th March 2023 |

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| **Main Purpose of Role** |

To strengthen the School of Computer Science’s record of excellence in the production of original research and the provision of outstanding teaching by:

* Conducting, publishing and otherwise disseminating original research in the general field Computer Science [Education and Research. Track].
* Teaching classes and delivering lectures to undergraduate and taught postgraduate students as well as supervising final year/Masters dissertations and doctoral theses as required
* Enhancing the School’s research culture by attracting external funding and graduate students.
* Contributing to the effective administration and management of the School’s activities, both physically and online.

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| **Key Duties and Responsibilities** |

1. Deliver lectures, seminars and tutorials and, if appropriate, laboratory classes to undergraduate and postgraduate students.
2. Devise and assess coursework and examinations for undergraduate and postgraduate classes and

provide feedback to students.

1. Devise and deliver specialist modules at honours and taught postgraduate levels related to your own

research interests

1. Supervise and examine dissertations and projects in your specialist area – final year, Masters and

doctoral theses.

1. Engage in, publish and otherwise disseminate original research
2. Apply for and win external research funding
3. Pursue research influence and impact, and support public engagement
4. Attract and recruit graduate students
5. Undertake administrative roles and management functions as required by the Head of School
6. Participate in committees and working groups within the School, the Faculty and the University as

may be required

1. Play an active role in building inter-disciplinary links across and outside of the University.

*Please note that this job description is not exhaustive, and the role holder may be required to undertake other relevant duties commensurate with the grading of the post. Activities may be subject to amendment over time as the role develops and/or priorities and requirements evolve*.

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| **Person Specification** |

This section details the attributes e.g. skills, knowledge/qualifications and competencies which are required in order to undertake the full remit of this post.

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| **Attributes** | **Essential** | **Desirable** | **Means of Assessment**  (i.e. application form, interview, test, presentation etc) |
| Education & Qualifications | Hold a PhD in a cognate discipline | Tertiary teaching qualification | Application/Certificates |
| Experience & Knowledge  (*examples of specific experience and knowledge sought*) | Ability to teach across a range of areas within Computer Science  Evidence of commitment to high quality academic teaching at undergraduate and postgraduate levels and commitment to developing innovative and effective approaches to future teaching  Developing research track record and clear potential for high-quality research publications | Specialised knowledge in the area of Data Science  Experience of postgraduate supervision  Evidence of success in attracting research grants/external funding and delivering on externally-funded research projects  Credible plans for the active pursuit of external research funding  Interest in inter-disciplinary research  High impact publications commensurate with level of appointment  Evidence of participation in relevant academic and professional associations/bodies  Impact and engagement evidence of commitment to the dissemination of research/teaching to constituencies/stakeholders beyond the academy  Some knowledge of issues and challenges facing universities in such areas as curriculum design, course assessment, quality assurance, enhanced student experience etc | Application/Presentation  Application/Presentation  Application/Interview  Publication list/samples of written work  Application/Interview  Interview |
| Competencies & Skills  (*e.g. effective communication skills, initiative, flexibility, leadership etc*) | Effective communicator (orally and in writing)  Ability to communicate complex, theoretical and technical material in an engaging and intelligible way to non-specialist audiences  Collegiality/willingness to work in a collaborative environment  Administrative and IT skills appropriate for efficient and effective delivery of teaching, supervision and research | Ability to lead a research initiative  Evidence of aptitude and effectiveness in departmental/institutional administrative tasks | Interview/Presentation  Interview/Application/ References |

**Essential Criteria** – requirements without which a candidate would not be able to undertake the full remit of the role. Applicants who have not clearly demonstrated in their application that they possess the essential requirements will normally be rejected at the short listing stage.

**Desirable Criteria** – requirements which would be useful for the candidate to hold. When short listing, these criteria will be considered when more than one applicant meets the essential requirements.

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| **Other Information** |

Interviews will be held on 6 March 2023.

We encourage applicants to apply online at [www.vacancies.st-andrews.ac.uk/welcome.aspx](http://www.vacancies.st-andrews.ac.uk/welcome.aspx), however if you are unable to do this, please call +44 (0)1334 462571 for a paper application form.

For all applications, please quote ref: AC2345RMR

Equality, diversity and inclusion are at the heart of the St Andrews experience. We strive to create a fair and inclusive culture demonstrated through our commitment to diversity awards (Athena Swan, Carer Positive, LGBT Charter, Race Charters and Stonewall). We celebrate diversity by promoting profiles of BAME, LGBTIQ+ staff and supporting networks including the Staff BAME Network; Staff with Disabilities Network; Staff LGBTIQ+ Network; and the Staff Parents & Carers Network. Full details available online: <https://www.st-andrews.ac.uk/hr/edi/>

The University of St Andrews is a charity registered in Scotland (No SC013532).

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| **Academic Review Period for New Starts** |

The University operates a review period of 4 years for all academic appointments. Detailed objectives for Research, Teaching and Service, covering a period up to 4 years, specific to the individual, taking account of the stage of their career at appointment and reasonable expectations for the relevant academic discipline, including workload management, will be agreed with the individual at the time an appointment is offered. The agreement will normally cover:

* Publications Strategy
* Engagement (including public and outreach)
* Grant applications
* Teaching

The review period is intended to be supportive and encouraging and the University will look for evidence of sustained high quality performance throughout. Details of the scheme can be found on the Human Resources website at:

<http://www.st-andrews.ac.uk/staff/policy/hr/AcademicReviewforNewStartsAllAcademicStaff/>

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| **Obligations as an Employee** |

You have a duty to carry out your work in a safe manner in order not to endanger yourself or anyone else by your acts or omissions.

You are required to comply with the University health and safety policy as it relates to your work activities, and to take appropriate action in case of an emergency.

You are required to undertake the Information Security Essentials computer-based training course and adhere to its principles alongside related University Policy and Regulations.

You are responsible for applying the University’s equality and diversity policies and principles in your own area of responsibility and in your general conduct.

You have a responsibility to promote high levels of customer care within your own area of work/activities.

You should be adaptable to change, and be willing to acquire new skills and knowledge as applicable to the needs of the role.

You may, with reasonable notice, be required to work within other Schools/Units within the University of St Andrews.

You have the responsibility to engage with the University’s environmental sustainability strategy, committing the University to reach net-zero by 2035.

You are required to engage with the technology, systems and communication channels necessary for you to undertake your work and must update your personal details via HR Self Service whenever there is a change.

Employees with staff management responsibilities must familiarize themselves with appropriate policies.

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| **Who Are We? St Andrews At a Glance** |

The third oldest university in the English-speaking world

Ranked top UK university in the [Times and Sunday Times Good University Guide 2022](https://news.st-andrews.ac.uk/archive/top-of-the-class/)

Twice named [University of the Year](https://news.st-andrews.ac.uk/archive/st-andrews-named-university-of-the-year/)

Consistently ranked [one of the UK’s top five universities](https://www.thecompleteuniversityguide.co.uk/league-tables/rankings) and top in Scotland in the *Complete University Guide*

Top in the UK for [student satisfaction](https://news.st-andrews.ac.uk/archive/st-andrews-top-for-student-experience-2/)

Research-intensive – ranked 3rd in Scotland and 28th in the UK in [UK Research Excellence Framework](https://www.ref.ac.uk/)

Athena SWAN [Bronze Award holder](https://news.st-andrews.ac.uk/archive/athena-swan-awards/)

[Strategy](https://www.st-andrews.ac.uk/about/governance/university-strategy/) founded on ambition to be World-Leading, Diverse, Global, Entrepreneurial and Socially Responsible

Committed to sustainability and [aiming for Net Zero by 2035](https://www.st-andrews.ac.uk/sustainability/)

More than 9000 students and 3000 staff

Highly international – more than 45% of students and staff are from outwith the UK

A non-campus university, closely integrated with the ancient town of St Andrews

Top quality [sports](https://www.st-andrews.ac.uk/sport/), [music](https://www.st-andrews.ac.uk/music/) and [nursery](https://www.st-andrews.ac.uk/hr/edi/carers/childcare/nurseries/) facilities for staff and students

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| **The University & Town** |

Founded in the early 15th century, St Andrews is Scotland’s first university and one of the oldest in the world.

Situated on the east coast of Scotland and framed by countryside, beaches and cliffs, [the town of St Andrews](https://en.wikipedia.org/wiki/St_Andrews) was once the centre of the nation’s political and religious life. Today, it’s a vibrant academic town with a distinctively cosmopolitan feel where students and university staff account for more than half of the local population.

The University of St Andrews is a diverse and international community of almost 13,000 students and staff, typically of more than 140 nationalities. It has more than 10,000 students, just over 8000 of them undergraduates, and employs approximately 3000 staff, made up of c1350 in the academic job families and c1650 in the non-academic job families.

Under the leadership of current [Principal Professor Sally Mapstone](https://www.st-andrews.ac.uk/about/governance/key-officials/principal/), the University’s [Strategy (2018-23)](https://www.st-andrews.ac.uk/about/governance/university-strategy/) is to broaden its global influence, become more diverse and consolidate its current position as the top UK university ([Times and Sunday Times Good University Guide 2022](https://news.st-andrews.ac.uk/archive/top-of-the-class/)).

The Strategy sets out the University’s ambitions to grow its international profile, champion diversity and inclusivity, expand its portfolio of world-leading research, develop stronger links with industry, and embed a culture of entrepreneurship among students and staff.

St Andrews has placed social responsibility at the heart of the Strategy, with a pledge to manage growth in student numbers, foster a growing culture of sustainability, and pursue a research and teaching agenda for the wider public good.

The University is one of Europe’s most research-intensive seats of learning. In the [Research Excellence Framework (REF 2021](https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ref.ac.uk%2F&data=05%7C01%7Csc350%40st-andrews.ac.uk%7C49aceb5f63c240c926ff08da4862842c%7Cf85626cb0da849d3aa5864ef678ef01a%7C0%7C0%7C637901885197306115%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=jhSn5A9k8jI8xV2A9dKVyyvOmE88Q37jibV8gR%2B14SQ%3D&reserved=0)) more than 88% of research carried out by the University of St Andrews is world-leading or internationally excellent. REF found that the overall quality of research at St Andrews had increased by 5.7% since the last assessment exercise in 2014.

St Andrews was ranked the top university in the UK in [The Times and Sunday Times Good University Guide 2022](https://www.thetimes.co.uk/article/good-university-guide-in-full-tp6dzs7wn): this is the first time in the history of the Guide, and UK university league tables in general, that a university other than Oxford or Cambridge has topped the rankings. St Andrews has consistently been ranked one of the UK’s top five universities in league tables compiled by [The Times and The Sunday Times](https://www.thetimes.co.uk/article/good-university-guide-in-full-tp6dzs7wn), [The Guardian](https://www.theguardian.com/education/universityguide) and the [Complete University Guide](https://www.thecompleteuniversityguide.co.uk/league-tables/rankings).

It is the third year that St Andrews has challenged the Oxbridge rankings, coming [second to Cambridge in 2020](https://news.st-andrews.ac.uk/archive/staff-and-students-help-st-andrews-to-league-table-first/) and [second to Oxford in 2021](https://news.st-andrews.ac.uk/archive/university-challenged-st-andrews-breaks-oxbridge/). It has frequently been rated the leading university in Scotland for [teaching quality and academic experience](https://news.st-andrews.ac.uk/archive/st-andrews-scoops-top-teaching-award/), and in the [National Student Survey 2021](https://news.st-andrews.ac.uk/archive/st-andrews-top-for-student-experience-2/) was the leading mainstream UK university for student satisfaction for the thirteenth year in a row.

In international and world rankings the University of St Andrews scores highly for teaching quality, research, international outlook and citations. It is a World Top 100 institution in the [QS World University Rankings 2022](https://www.topuniversities.com/university-rankings/world-university-rankings/2022).

St Andrews’ reputation for teaching, research and student satisfaction make it one of the most sought-after destinations for prospective students from the UK, Europe and overseas.

The University typically averages 12 applications per place and has not offered Clearing places for more than a decade. St Andrews has highly challenging academic entry requirements to attract only the most academically potent students in the Arts, Sciences, Medicine and Divinity.

St Andrews holds an Institutional [Athena SWAN Bronze Award](https://news.st-andrews.ac.uk/archive/athena-swan-awards/). Sixteen Schools hold [Bronze Awards](https://news.st-andrews.ac.uk/archive/university-secures-gender-equality-awards/), while the Schools of Physics & Astronomy and Psychology & Neuroscience have achieved [Athena SWAN Silver Awards](https://www.st-andrews.ac.uk/hr/edi/sex_gender/athenaswansupport/), and the School of Biology holds a [Gold Award](https://biology.st-andrews.ac.uk/edi/2021/05/10/school-of-biology-receives-an-athena-swan-gold-award/).