

# LECTURER/SENIOR LECTURER (COMPUTING SCIENCE) – 4 POSTS

**School of Natural & Computing Sciences** 

Closing date: 19 August 2021 Interview date: TBC Reference number: NCS179A













# INTRODUCTION

The School of Natural and Computing Sciences is a vibrant and dynamic centre, internationally renowned for excellence both in teaching and research. It currently comprises four academic units, namely: Chemistry, Computing Science, Mathematics and Physics. Hosting over 95 academic and research staff, 60 research students, 120 postgraduate taught students and 690 undergraduates; it is a close knit and friendly community, based on the main campus at King's College.

Launching in September 2021, the Aberdeen Institute of Data Science and Artificial Intelligence, South China Normal University is a collaboration between the University of Aberdeen and South China Normal University (SCNU) to deliver three 4 year undergraduate degree programmes in China closely based on the content of the existing BSc (Hons) Computing Science degree (and variants) at Aberdeen. The Institute builds on an existing 2+2 articulation programme in Computing Science and Software Engineering with SCNU.

The programmes to be delivered as part of the Institute are as follows:

- BSc Computing Science
- BSc Artificial Intelligence
- BSc Business Management & Information Systems [Joint programme with the Business School]

Students registered on these programmes will complete their studies entirely in China, with teaching delivered jointly by SCNU and Aberdeen staff, with the latter travelling to China to do so.

Data Science & Artificial Intelligence have been recognised as a priority for the University as part of its 'Aberdeen 2040' strategy, and the School is looking to significantly increase its strengths in these and related areas.

The School's strategic focus lies across the themes of Artificial Intelligence (AI) and Trust, Identity, Privacy and Security (TIPS), and we particularly encourage candidates who work at the intersection of theory and application within these areas to apply. Within AI, application domains include cybersecurity, energy, food technology and healthcare, while theoretical research encompasses human/machine collaboration, natural language technologies and explanation, as well as machine learning and multi-agent systems. The TIPS theme focuses on computational trust and reputation systems; cybersecurity; provenance; and blockchain technologies - with application areas including healthcare and the digital economy. Successful applicants would be expected to strengthen the School's interdisciplinary collaborations across the University and with industry through funded research.

Computing Science currently has 19 members of academic staff, together with around 40 postdoctoral researchers and PhD students. Research is underpinned by a strong and broad funding portfolio based around our two themes, with nearly £4.5M in funding over the past five years from research councils, charities, the EU, and industry. In REF2014, the department was ranked 16th in the UK in terms of research intensity, with 75% of outputs ranked as 3\* or 4\*. Much of the research is interdisciplinary in nature, reflecting the department's involvement with, and funding from, the RCUK Digital Economy theme; most notable of which was the award of a Digital Economy Hub (2009-2015).

Recent research awards within the department relevant to the proposed appointments include Realising Accountable Intelligent Systems (EPSRC, 2019-2022), Interactive Natural Language Technology for Explainable Artificial Intelligence (EU, 2019-2023), and Enhancing Agri-food Transparent Sustainability (EPSRC, 2021-2024).

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#### Main purpose of the role:

The School of Natural and Computing Sciences is looking to appoint 4 full-time staff at Lecturer or Senior Lecturer level in Computing Science to teach on a broad range of computing science lectures, laboratory classes and tutorials, and undertake administrative duties as necessary – as part of the *Aberdeen - South China Normal University* Institute. Appointees will primarily be based in Aberdeen, but will be expected to travel to China to deliver their teaching obligations; visits are likely to be up to 4 weeks duration at any one time.

Applicants should have research expertise in the Artificial Intelligence or TIPS areas, and have the ambition to work across disciplines and with industry to achieve their research vision as part of the Aberdeen 2040 'Data & Artificial Intelligence' challenge.

Candidates whose work is applicable to domains such as cybersecurity, energy, agri-food and healthcare, or who undertake research related to machine learning, explanation, human/machine collaboration, multi-agent systems or natural language technologies are particularly encouraged to apply. Successful applicants are expected to strengthen the School's expertise in these areas.

## Key Responsibilities:

#### Research

- To conduct cutting-edge research in the fields of Artificial Intelligence or Trust, Identity, Privacy & Security (TIPS) related to the School's strategic focus.
- To prepare and submit manuscripts for publications in leading international conferences and journals.
- To prepare and submit grant applications for external (e.g. UKRI) research support.
- Take responsibility for the supervision and training of postgraduate research students.

#### Education

• To contribute to the design, development, delivery, assessment and administration of a range of undergraduate courses delivered as part of the Aberdeen - South China Normal University Institute. This includes Contribution to supervision of undergraduate dissertations within the Aberdeen - South China Normal University Institute.

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#### Administrative & Support

- To supervise students directly, providing a high standard of support and help. To identify the learning needs of students and defining learning objectives.
- To undertake administrative duties, as determined by the Head of School and Academic Line Manager.



Applications are invited from candidates who can demonstrate an excellent research profile, as evidenced by publications in leading academic conferences and journals. They must also be able to demonstrate their potential for sustaining a funded research programme at the University of Aberdeen. Enthusiasm for innovation in Computer Science education and a desire to contribute actively to the success of the *Aberdeen - SCNU* Institute is also essential.

Candidates should have a PhD and demonstrable research experience in Computer Science or a related discipline relevant to the role.

For a Senior Lecturer position, candidates should demonstrate a track record of successful grant applications, research student supervision and undergraduate/taught postgraduate teaching.

# TERMS OF APPOINTMENT

Lecturer salary will be at the appropriate point on the Grade 7 salary scale (£41,526 - £49,552 per annum) and Senior Lecturer will be at the appropriate point on the Grade 8 salary scale (£52,559 - £59,135 per annum). The placement on the scale is negotiable according to qualifications and experience.

It is a fundamental requirement of the role that you will spend periods of time working overseas in China. It is expected that teaching time in China will be approx. 4 weeks, twice a year but may on occasion be more.

Any appointment will be made subject to satisfactory references, and in the case of Lecturers, a 3 year probation period.

This role is based in the UK and as such the successful candidate will be required to live and work in the UK.

The candidate appointed to this post may be eligible for homeworking on an occasional or regular basis. For more information please refer to our <u>Homeworking Policy</u>.

Should you require a visa to undertake employment in the UK you will be required to fulfil the minimum points criteria to be granted a Certificate of Sponsorship under the requirements of the Skilled Worker visa. At the time an offer of appointment is made, you will be asked to demonstrate that you fulfil the criteria in respect of qualification and competency in English. For research and academic posts, we will consider eligibility under the Global Talent visa. Please do not hesitate to contact Heather Clark, HR Adviser (e-mail: h.m.clark@abdn.ac.uk) for further information.

In addition, you will be required to be eligible for and be in a position to obtain the appropriate work visa in China.

For further information on various staff benefits and policies please visit www.abdn.ac.uk/staffnet/working-here

# AT A GLANCE

Lecturer Grade 7 (£41,526 - £49,552 per annum) Senior Lecturer Grade 8 (£52,559 - £59,135 per annum) HOURS OF WORK: Full-time CONTRACT TYPE: Substantive LOCATION:

Aberdeen with travel to China





	ESSENTIAL	DESIRABLE
Education/Qualifications Academic, technical and professional education and training	PhD in computer science or a related discipline.	<ul> <li>Membership of appropriate professional/learned institutions.</li> <li>Appropriate academic professional and teaching qualification (e.g. FHEA).</li> </ul>
Work and Other relevant experience (including training) e.g. Specialist knowledge, levels of experience, supervisory experience, research	<ul> <li>Record of publications in leading international conferences and journals (commensurate with career stage).</li> <li>Strong research profile with ability to develop and lead research projects (commensurate with career stage).</li> <li>Demonstrable potential to carry out leading research in specialist area.</li> <li>Record of or evidence-based potential for securing funding to support research.</li> <li>Demonstrable teaching experience s at undergraduate and postgraduate levels.</li> <li>Experience in the development of taught courses at undergraduate or postgraduate level, or equivalent experience (commensurate with career stage).</li> <li>Ability to provide supervision to doctoral students.</li> </ul>	<ul> <li>Experience of University teaching, supervision of students at undergraduate and postgraduate levels (commensurate with career stage).</li> <li>Experience in the administration of academic affairs or similar experience (commensurate with career stage).</li> </ul>
Personal qualities and abilities e.g. initiative, leadership, ability to work on own or with others, communication skills	<ul> <li>Excellent written, oral and presentation skills.</li> <li>Ability to think creatively and innovatively and impart enthusiasm for the subject.</li> <li>Excellent organisational skills.</li> <li>Ability to balance the pressures of teaching, research and administrative demands and competing deadlines.</li> <li>Excellent networking skills in order to develop strong relationships with external partners and with academics and researchers from other institutions.</li> <li>Ability to contribute, professionally and otherwise, to the life of the School and the University, commensurate with career stage.</li> <li>Demonstrable ability to work well as part of team.</li> <li>Ability to work with minimum supervision and act on own initiative.</li> <li>Commitment to personal development and updating of knowledge and skills.</li> </ul>	<ul> <li>Ability to participate in appropriate national and international research networks.</li> <li>Ability and willingness to work in multidisciplinary environment.</li> </ul>
Other e.g. special circumstances (if any) appropriate to the role such as unsocial hours, travelling, Gaelic language requirements etc.	<ul> <li>Fundamental requirement of your employment that you will spend periods of time working overseas in China.</li> <li>Able to travel to national and international meetings and conferences and to deliver teaching at different locations including overseas.</li> </ul>	



## open to all and dedicated to the pursuit of truth in the service of others

The University of Aberdeen is a broad based, research intensive University, and we put students at the centre of everything we do. Outstanding in a wide range of discipline areas, Aberdeen is credited for its international reach and commercialisation of research ideas into spin out companies. The University has over 16,000 matriculated students and 3,600 staff representing 130 nationalities. We encourage bold thinking, creativity and innovation, and we nurture ambition with many opportunities for professional and personal development in an inclusive learning environment which challenges and inspires.



## CURRENT CONTEXT

The University continues to build on its achievements. Underpinning our high performance and significant growth is a £100m investment in Aberdeen's estate which will include the completion of a new Science Teaching Hub, the regeneration of the historic King's Quarter and a new Business School building. The University has also invested in 50 new academic posts and in 2020 launched five interdisciplinary, cross-institution Research Centres that will catalyse world-leading research in our areas of strength. Our five Interdisciplinary Challenges are: Energy Transition; Social Inclusion and Cultural Diversity; Environment and Biodiversity; Data and Artificial Intelligence; and Health, Nutrition and Wellbeing.

## ABERDEEN 2040

On our 525th anniversary as a University we launched <u>Aberdeen 2040</u>, our strategic vision for the next 20 years. Four strategic themes will shape our learning and discovery, underlined by 20 commitments we have made against each theme:

Inclusive

We welcome students, staff and partners from all backgrounds, organisations and communities. We value diversity.

- Interdisciplinary We innovate in education and research by generating, sharing and applying new kinds of knowledge. We learn together.
- International We connect with others and extend our networks and partnerships around the world. We think across borders.
- Sustainable

We understand and nurture our environment, and take care of our resources, including our people and finances. We work responsibly.

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## OUR EDUCATION

Recognised as the Scottish University of the Year in the Times and Sunday Times Good University Guide 2019, we remain true to our roots as an ancient Scottish university, combining breadth and depth in our degree programmes and drawing strength from the quality of our research. Our flexible curriculum encourages students to grow as independent learners and therefore to thrive as graduates in the diverse workplaces of the future. Our education is open to all and we are setting ambitious targets to further widen access.

## **OUR RESEARCH**

Researchers at the University of Aberdeen have been at the forefront of innovation and excellence throughout the centuries, generating insights in medicine, science, engineering, law, social sciences, arts and humanities. This research has contributed to five Nobel prizes as well as other awards such as the Queen's Anniversary prize. Our research is intellectually rigorous working within our established areas of excellence as well as new methods of enquiry. We will continue to generate new knowledge addressing economic and societal issues with ambition and imagination, ensuring that it is globally excellent and locally relevant.

## **INTERNATIONAL**

Aberdeen is increasing its international presence, positioning the University as a global organisation and building on established global partnerships in e.g. Qatar, China, North America, Europe. We feature in the top 50 institutions worldwide for international students<sup>1</sup> and have been named 32<sup>nd</sup> in the world for International Outlook<sup>2</sup>. The University of Aberdeen is proud to be the first UK University to operate on a dedicated campus in Qatar. Phase 1 of this partnership with AFG College has successfully recruited over 600 students. Phase 2 will see the creation of a substantially larger campus, with capacity for at least 5,000 students and research activity. For further information on our Qatar campus visit <u>www.abdn.ac.uk/qatar</u>.

### IMPACT

Our dedication to building a sustainable future is reflected in the Times Higher Education Impact Rankings 2021 where we were ranked in the top 60 Universities worldwide for positive impact on society.

In 2020 the University signed the United Nations Sustainable Development Goals accord, solidifying our commitment to developing the world in a sustainable way. In 2021 we were listed in the global Top 50 for 6 of these goals and in the UK Top 20 for all 17<sup>3</sup>.

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<sup>&</sup>lt;sup>1</sup> Times Higher Education World University Rankings 2021

<sup>&</sup>lt;sup>2</sup> QS World University Rankings 2021

<sup>&</sup>lt;sup>3</sup> Times Higher Education Impact Rankings 2021



## ABERDEEN AND ABERDEENSHIRE

Scotland's third largest city, Aberdeen sits on the coast between the mountains of Aberdeenshire and the stunning North Sea coastline. The Aberdeen City region is a can-do place that is actively investing, at scale, in its future.

Renowned as a Global Energy Hub, Aberdeen is a vibrant, entrepreneurial region, home to a unique mix of business opportunities and specialist skills across various sectors including energy, technology, life sciences and food & drink. More than 20% of Scotland's top businesses are located in this region which is taking great strides to ensure that it continues to compete on a world stage. Investments of more than £10 billion of public and private infrastructure is due to be delivered before 2030, marking an exciting time to be part of a genuine world-class location.

Built from sparkling local granite Aberdeen has earned the name of the Silver City. As the energy capital of Europe, Aberdeen nevertheless retains its old-fashioned charm and character making it an attractive place in which to live, work and study. Due to its global business and international energy industry credentials, Aberdeen is well served by local and national transport infrastructure with excellent rail networks that run both North and South of Scotland and the rest of the UK. It also acts as an international travel hub. Flying time to London is just over one hour with regular daily flights and serves international travel to European centres such as Amsterdam (Schiphol) and Paris (Charles de-Gaulle) as well as flights to other European destinations.

The City and the surrounding countryside provide a variety of urban, seaside and country attractions. Aberdeen has first class amenities including <u>His Majesty's Theatre</u>, <u>Music Hall</u>, <u>Art Gallery</u>, <u>the P&J Arena</u>, <u>Museums</u>, and <u>Beach Leisure Centre</u>. The City is framed by its accessible beach front which is within a short walk of the city centre and there are an array of activities available across the region such as hill walking; mountaineering; sailing; surfing; salmon, trout and sea fishing; golf; sailing; surfing and windsurfing. The surrounding countryside, known as Aberdeenshire, is also one of Scotland's most appealing regions. Royal Deeside and the Cairngorms National Park are within easy access of the city, and there are a variety of towns and villages scattered along the coastline.

The city and the surrounding area have ranked consistently highly in nationally recognised quality of life surveys, coming out top 10 as one of the best places to live in Scotland in 2020 in the annual Bank of Scotland survey.

To find our more visit www.visitabdn.com



The University values a diverse working environment and recognises the benefits this can bring. The University is keen to receive applications from individuals from across all of the equality protected characteristics (age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, sexual orientation).

The University supports opportunities for flexible working for a range of reasons and has policies in place to facilitate this. The policies can be found at <a href="https://www.abdn.ac.uk/staffnet/working-here/flexible-working--5607.ph">https://www.abdn.ac.uk/staffnet/working-here/flexible-working--5607.ph</a>.

The University's commitment to gender equality has been recognised through the achievement of an Athena SWAN Bronze award at an institutional level and across all its subject areas. The University is also a Stonewall Diversity Champion to further LGBT+ equality.

The University is signed up to Advance HE's Race Equality Charter, affirming the University's commitment to the charter's aim of improving the representation, progression and success of minority ethnic staff and students within higher education.

Candidates who are British Sign Language (BSL) users can contact us directly by using contact SCOTLAND-BSL.

The University is delighted to be accredited as a <u>Disability Confident</u> employer and strives to ensure that disabled staff and students have the opportunity to work and study in an inclusive, accessible and supportive environment.

www.abdn.ac.uk/staffnet/governance/equality-and-diversity-277

# HOW TO APPLY

Online application forms are available at www.abdn.ac.uk/jobs

Applications should include a curriculum vitae, research and teaching statements, and a cover letter of no more than two sides of A4, outlining your reasons for making an application.

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The closing date for receipt of applications is 19 August 2021

Should you wish to make an informal enquiry please contact:

Professor Nir Oren, Head of Computing Science

n.oren@abdn.ac.uk

Please do not send application forms or CVs to Professor Oren.

Please quote reference number NCS179A on all correspondence