University of BRISTOL

## Faculty of Science and Engineering

# Lecturer in Cyber Security

**Job number: ACAD108761**

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## 1. Introduction

The School of Computer Science at the University of Bristol is seeking to grow our thriving and talented team.

## 2. Job Description

### a. Main job purpose

We wish to hire an outstanding candidate to fill a new Lectureship position in Cyber Security.

This post will be a Lecturer-level appointment (Grade J or K) within the School of Computer Science, part of the Faculty of Science & Engineering at the University of Bristol. This is on a fixed term basis until 31st January 2028.

The postholder will contribute to the University's impressive record of consistently delivering world-leading research (as demonstrated in the last REF exercise which ranked the School 7th in the UK for CS research) and to developing and delivering the School's education programmes (including our two MSc programmes The School prides itself on its academic quality and its collegiality. We are incredibly proud of our outstanding working environment with a dedicated professional services team, a very high standard of achievement in research and education, and a culture of inclusivity and kindness.

Candidates will have a PhD in Computer Science or a closely related discipline or may have equivalent experience in industry. They will have a track record of publishing in top academic venues and applying for external funding appropriate to their career stage. The potential for leadership, undertaking research collaborations with colleagues from top international labs, and collaborating on impactful translation of ideas with relevant industrial partners is desirable. The successful candidate will be able to design and deliver excellent teaching at both undergraduate and postgraduate level and will be committed to making the most of growing opportunities in this area.

### b. Statements of responsibilities

**Research**

*For Grade J*

- Develop and maintain an internationally outstanding programme of research leading to outstanding publications in the subject area;
- Develop research with regard to its potential impact beyond the academy;
- Work to attract external research funding from research councils, government, industry or other sources;
- Be willing to lead on funding bids and knowledge dissemination initiatives;
- Be involved in all aspects of school research management including internal peer review activities, research mentoring, staff review, and strategic research development.

*Additional for Grade K*

- Supervise and mentor doctoral research students to graduation, assisting in developing their research skills.
- Develop contacts with external bodies, including relevant communities, public and private enterprises, and actively contribute to research networks.

**Teaching**

*For Grade J*

- Contribute to the scholarly activities of the School;
- Teach effectively at all levels of the School curriculum;
- Develop and introduce new material and/or taught units as required;
- Take on lead roles in relation to programmes, curriculum development, and the broader student experience.

*Additional for Grade K*

- Develop and introduce new taught units and/or degree programmes as required;
- Contribute to the development and quality enhancement of curricula and teaching methods in the School.

**Citizenship**

*For Grades J and K*

- Make a contribution to the success of the School through participation in academic administration. Responsibilities are likely to include, but are not limited to: programme development; promotion, marketing and admissions; organising and monitoring delivery of units; overseeing the welfare of students including personal tutoring; liaising with external examiners; interaction with Industry and other external partners; coordinating and supporting allocated teaching associates; outreach activities; and reviewing and revising programme/units in accordance with the University's Quality Assurance practices.
- Contribute to the effective running of the School and Faculty by undertaking other administrative duties as assigned by the Head of School.

## c. Contacts

**Line managed by:**

- Head of Academic Team (Cyber Security) -> Head of School of Computer Science.

**Line manager to:**

- Not currently applicable, although there is an expectation that this post would manage Research staff when required.

**Internal Contacts:**

- School and Faculty staff (Academic and Professional Services)
- School undergraduate and postgraduate students
- Staff and students in the wider School, Faculty and University

**External Contacts:**

- Research collaborators
- Industry and third sector organisations;
- Government and professional bodies;
- Funding agencies
- Partners, alumni, mentors, and clients.

## 3. The Post: Person Specification

The person specification provides a summary of what is required to carry out this job effectively. It also forms the selection criteria on which the decision on whom to short-list and then whom to appoint will be made. Please ensure that you demonstrate in your application how you meet these criteria to a level and extent that is appropriate to your career stage and the Grade to which you are applying.

We would be happy to discuss the possibility of job share, part-time or flexible working patterns. We would also welcome applications from those with caring responsibilities.

**Experience, skills and knowledge:**
*Essential:*

- Track record of excellent research and publications appropriate to career stage.
- Experience of teaching.
- Evidence of independence in research and teaching within Systems and Software Security.
- Experience with taught undergraduate or postgraduate project supervision.
- Ability to work in a team.

*Desirable:*

- Experience with securing external funding bids.
- Development of research impact.
- Experience supervising research students.

*Additional for Grade K*

- Experience of successfully managing your own contribution to teaching, research, and administration, and to collective research where appropriate.

**Relevant qualifications:**

*Essential:*

- A PhD in Computer Science or near completion, or equivalent research experience in an academic, industrial or clinical setting equivalent to a PhD.

*Additional for Grade K*

- A PhD in Computer Science or a closely related discipline, or extensive relevant industrial/commercial experience.

**Communication and interpersonal skills**:

*Essential:*

- Excellent written and spoken English.
- Strong organisational and teamwork skills.

*Desirable:*

- Excellent networking ability within and outside of academia.

*Additional for Grade K*

- Evidence of being able to work successfully with colleagues and students, including the ability to coordinate the work of other staff and supervise the work of research students.

## 4. School of Computer Science

The University of Bristol's School of Computer Science is an internationally leading centre for research and teaching. The School is responsible for successful undergraduate programmes (BSc and MEng) in Computer Science, Computer Science with AI, and joint honours in Computer Science with Mathematics. The School leads a hugely popular conversion MSc in Computer Science, as well as innovative postgraduate programmes in Immersive Technologies and Cybersecurity.

Research within the School is organized around distinctive academic teams and research groups. Due to the many cross-linkages between the interests of the members of staff, it is common for individuals to belong to multiple groups, enabling the School to undertake dynamic research activity that responds to the changing landscape. Currently groups across the School are:

- AI and Machine Learning
- Algorithms and Complexity
- Bristol Interaction Group
- Cryptography
- Bristol Cyber Security Group
- High Performance Computing
- Machine Learning and Computer Vision
- Programming Languages
- Trustworthy Systems Laboratory
- Visual Information Laboratory

The School hosts recently renewed Doctoral Training Centres in both Artificial Intelligence and Cybersecurity and leads one of the recently announced UKRI National Research Hubs in AI (AI for Collective Intelligence). Computer Science will be one of the 'anchor' Schools at the Temple Quarter Enterprise Campus (TQEC): a brand new £300m city campus, a radical reinvention of what it is to be a University for the next century, fully engaged with industrial partners and with the communities of the city and its region, expressly designed to serve needs at local, national, and global scales. The ambitious plan will grow the School by about 50% over the next five years. Current major activities include the Strength-in-Places MyWorld programme in Creative and Immersive technologies, significant government investment in high-performance computing including the Isambard AI supercomputer, and major research activities in Cybersecurity on industrial systems, privacy and online harms.

Our taught programmes all attract talented students with high standards, across undergraduate courses in Computer Science, Computer Science with AI, Computer Science & Maths (in partnership with the School of Mathematics) and Computer Science with Innovation, and a range of postgraduate taught and research programmes in Computer Science, Cyber Security and Immersive Technologies.

## 5. Faculty of Science and Engineering

The Faculty of Science and Engineering informs, develops and applies world leading scientific knowledge and expertise to address a wide array of global challenges. With research spanning from the theoretical and fundamental building blocks of the universe to applied solutions for real world problems, we pay attention to the needs of the local, UK based and global economy. Our mission is to develop blue sky ideas and take them to practical implementation setting our work within social and economic contexts enabling us to improve lives, livelihoods and societies around the world.

Our successes are due to our dedicated and talented academic, technical, and professional staff and our undergraduate and postgraduate students. The Faculty is home to a diverse and thriving community of over 1600 full-time equivalent (FTE) academic staff, supported by over 400 professional services staff, including a dedicated team of 165 technical specialists. We host over 7300 taught and 1000 research students. Around 35% of our cohort are overseas students, and we have a strong international staff body; we actively celebrate and support this diversity.

The Faculty of Science and Engineering is comprised of nine academic schools:

The School of Chemistry
The School of Civil, Aerospace, and Design Engineering
The School of Computer Science
The School of Earth Sciences
The School of Electrical, Electronic and Mechanical Engineering
The School of Engineering Mathematics and Technology
The School of Geographical Sciences
The School of Mathematics, and
The School of Physics.

Analysis of the 2021 Research Excellence Framework (REF) by Times Higher Education ranked all of our disciplines within the top 10 nationally for research, with *Chemistry* and *Geography and Environmental Studies* both 1st, *Earth Systems and Environmental Sciences* 2nd, *Mathematical Sciences* 4th, *Physics* 5th, *Engineering* 6th and *Computer Science* 7th in the UK.

Through our research excellence and exceptional learning environments we inspire the next generation of world-changing scientists and engineers; helping our students to reach their full potential to enable them to tackle the challenges of a future that we are yet to imagine. We offer a diverse range of programmes at undergraduate and postgraduate level across the schools, including enticing taught master's courses and innovative interdisciplinary programmes.

The Faculty of Science and Engineering has been highly successful in securing competitive funding from UK Research and Innovation (UKRI) and its research councils to develop Centres for Doctoral Training (CDTs). These concentrate on areas of national need and emerging and interdisciplinary research themes. We currently lead Centres for Doctoral Training in Aerosol Science; Cyber Security; Engineering Biology; Innovation for Sustainable Composites Engineering; Practice-Oriented Artificial Intelligence; Superconductivity; Technology Enhanced Chemical Synthesis; and Quantum Information Science and Technologies. Additionally, we are involved in a collaborative CDT in Sustainable Sound Futures. We also spearhead the NERC-funded GW4 training partnership in earth and environmental sciences aimed at nurturing the next generation of science leaders.

We foster a culture and environment that encourages scientific excellence and maximises the societal impact of our research. The Faculty is supported by a comprehensive range of cutting-edge research facilities spanning all science and engineering disciplines. We continually invest in these facilities, including the Aerodynamics and Aeroacoustics Labs, Bristol Digital Futures Institute, Bristol Robotics Laboratory, Cleanroom, Interface Analysis Centre, NanoESCA, NMR, Organic Geochemistry Unit, Smart Internet Lab, and the Soil-Foundation-Structure Interaction Facility.

We see co-creation and collaboration as essential for driving successful research and innovation. By working in partnership with other academic disciplines, government agencies, non-profit organisations, spin outs, SMEs, and multinationals, we are inspired to dig deeper, try harder and achieve more. We enjoy close and productive relationships with many key industry players across a range of sectors such as Wessex Water, the Met Office, Airbus, Rolls-Royce, EDF Energy, Cisco, Aardman, Google, Toshiba, BT, Thales, Reuters, Hewlett-Packard, QinetiQ, Unilever, LV= and National Air Traffic Services. We also have strong connections to a number of UK Catapults, including hosting the National Composites Centre, and work closely with third sector organisations, charities and government e.g. the Environment Agency, Babbasa and The Grand Appeal.

Within the Faculty, we have teams who manage our links with industry and beyond. These include student facing roles, with well-established mentoring, internship and year in industry schemes. We provide other opportunities for students to engage with industry through projects, technical talks and sponsored events and competitions. We also have staff dedicated to providing project and research management and administrative support to research groups and major projects.

## 6. The University and the City of Bristol

The University of Bristol's roots date back to 1876. Since its formation it has become one of the leading institutions among the UK's Russell Group of universities and operates globally, where it is recognised for its research and academic excellence.

The University has a strong interdisciplinary approach and regularly features among the top-ranking institutions in global league tables.

The University of Bristol's mission is '*to pursue and share knowledge and understanding, both for their own sake and to help individuals and society fulfil their potential*'. This is underpinned by a vision where the University of Bristol is an international powerhouse of learning, discovery and enterprise, whose excellence is acknowledged locally, nationally and globally, and that is:

- dedicated to academic achievement across a broad range of disciplines, and to continuous innovation and improvement
- research-intensive, supporting both individual scholarship and interdisciplinary or thematic research of the highest quality

- a centre for intellectually demanding, research-informed education that nurtures independence of mind and helps students achieve their personal goals and serve society's needs, both during and after their time here
- an inclusive and collaborative community of scholarship that attracts and retains people with outstanding talent and potential from all walks of life and all parts of the world
- a stimulating and supportive environment for all students and staff, distinguished by a commitment to high standards, respect for the individual and a strong sense of collegiality
- committed to operating in a sustainable manner
- engaged with society's interests, concerns, priorities and aspirations
- a major contributor culturally, environmentally and economically to Bristol and the South West
- well led and responsibly run, with an emphasis on consultative decision-making and open communication as well as personal responsibility and accountability

Key to Bristol's vision is a clear and consistent articulation of and dialogue with its many stakeholders and the public about the wide range of research carried out at the Institution and hence is often featured in many national and international media. It has a proud history of two-way dialogue as part of its research activities and addresses the world's key challenges through an interdisciplinary approach.

The University also plays a lead role in the city of Bristol's cultural and economic well-being and carries out an extensive programme of events and activities on behalf of the city, as well as being a keen supporter of partner organisations' activities.

For more information, please see http://www.bris.ac.uk/university/

## 7. Workplace Culture and Inclusion

A commitment to equality, diversity and inclusion is fundamental to our University's core values, ensuring our success as a high-performing global civic institution with a positive and supportive culture, where all staff and students feel empowered and respected.

As a leading global institution, we are keen to attract talented individuals from a diverse range of backgrounds. Further information can be found on our **Workplace Culture and Inclusion webpages**.

We are committed to creating and sustaining a positive and mutually supportive working environment for our staff and an excellent teaching and learning experience for our students, where staff are equally valued and respected, and students are encouraged to thrive academically. We offer a broad range of services, activities and initiatives to enhance our staff experience of working at Bristol. For more information, please visit our **Health and Wellbeing webpages.**

The University is happy to discuss flexible working opportunities with applicants including whether a role can be considered as a job-share arrangement. Further information on our **flexible working policy** is available on our **Work-Life Balance webpages**.

## 8. Academic Career Pathways

As part of the process of modernising its pay and grading systems, the University has introduced career pathways for academic staff. What this means is that all members of academic staff have a clear career pathway involving a series of levels with distinct role profiles, each with its unique requirements. Each profile sets out what is expected of an academic at the particular level. The role profiles also set out a collection of competencies expected for each level.

This post is located on Pathway One - academic roles where the responsibilities are primarily to cover essential teaching and educational needs.

## 9. Terms and Conditions

(a) We would like the successful applicant to take up the appointment as soon as possible.

(b) This post is located in the School of Computer Science at the University of Bristol.

(c) This role is located on Pathway One and will be appointed either at Lecturer (Profile Level b or c).

(d) The salary will be either on Grade J in the range £45,641 - £51,258 per annum or Grade K in the range of £52,788- £59,390 per annum depending on experience. For further information on salary scales please see: http://www.bris.ac.uk/hr/salaries/

(e) The appointment will be subject to the terms and conditions for staff on grade J and above, details of which can be found at: http://www.bris.ac.uk/hr/terms/jandabovestaff.html

(f) This post is full-time, 1.0 FTE.

(g) The post will be offered on a fixed term basis with a funding end date 31/01/2028 or until the substantive postholder returns, whichever is sooner, subject to satisfactory performance.

(h) Subject to the rules of the scheme, the post holder may participate in the Universities' Superannuation Scheme (USS). Further information on the scheme can be found at www.uss.co.uk/. Unless newly appointed staff members declare in writing a wish not to participate in the USS, they will be deemed to be members from the start of employment, and contributions will be deducted accordingly. As a consequence of participating in this Scheme, University staff will be contracted out of the earnings-related part of the State Pension Scheme.

(i) A Pension Salary Exchange scheme is in operation in order to increase take-home pay and save costs. For more information see

http://www.bristol.ac.uk/hr/salaries/sal-exchange/

(j) Details of the University Relocation Expenses policy for staff relocating to take up post are available from http://www.bristol.ac.uk/hr/resourcing/practicalguidance/appointment/relocation1.html

(k) All staff newly appointed to Pathway 1 and Pathway 3 contracts, without a teaching in HE qualification should complete the CREATE scheme to gain Fellowship or complete the Health Professions Education programme. Engagement with CREATE/HPE should start within the first year of appointment, and completion should be within two years of appointment or before promotion (whichever is earlier). For those seeking promotion to Senior Lecturer, CREATE must be completed (ratified) before applying. See the Policy for staff participation in the CREATE scheme and CREATE webpages for further information.

(l) If you are employed on a fixed-term contract where the reason is cover or because it is a training/development role, your contract will normally come to an end under Ordinance 30 (Some Other Substantial Reason ("SOSR")) as set out in the Fixed Term Contracts Policy. If this is the case, you will not be eligible for redundancy pay or access to the University Redeployment Pool. The reason for offering a fixed-term contract will be made clear in the advert.

## 10. Application Procedure and Selection Process

Please visit our web site at www.bris.ac.uk/jobs, enter the vacancy ACAD108761 into the job search and follow the link to the online application process.

Further information on the University's application process can be found at: http://www.bristol.ac.uk/jobs/application-process.html

Please note the following:

- A cover letter highlighting achievements and justifying fit to the role must be uploaded as part of the application process, as well as a **Full CV**.
- A Selection Panel has been established to review all applications for this post and to conduct interviews of short-listed candidates.
- Short-listing is planned to take place shortly following the closing date for applications.
- Interviews are expected to be conducted in-person in Bristol. Candidates will need to be available on both days for presentations on one day and interviews on the other.
- Candidates will be invited to give a presentation prior to their formal interview, as part of the final selection process.

## 11. Additional Information

**Further information**

For an informal discussion about the post, please contact:

Name: Professor Mike Fraser, Head of School of Computer Science,
Address: Merchant Venturers Building, Woodland Road, Bristol, BS8 1UB
E-mail: mike.fraser@bristol.ac.uk

Name: Inah Omoronyia
Address: Merchant Venturers Building, Woodland Road, Bristol, BS8 1UB
E-mail: inah.omoronyia@bristol.ac.uk