

Job title	University Assistant Professor in Machine Learning
Grade	Grade 9
Salary range	£46,485 - £58,596
Staff Group	Academic
Department / Institution	Department of Engineering

Role-specific information

Role Summary

Applications are invited for a University Lectureship in Machine Learning. The successful candidate will join the Computational and Biological Learning Lab in the Information Engineering Division. The candidate will lead a research programme in the broad area of machine learning.

We encourage applicants who will strengthen our current research activities in probabilistic machine learning, reinforcement learning, supervised and unsupervised learning, active learning, and all aspects of machine intelligence. We welcome applicants with an interest in applications of machine learning to engineering and the sciences and who can make contributions to fundamental aspects of machine learning.

The position has been funded in part by a generous contribution from Toyota Motor Corporation. The successful applicants will have the opportunity and resources to work with Toyota on rich real-world data modelling, prediction, and decision making problems. We will give priority to candidates who are well placed to do this. Toyota have broad research interests that span from fundamental to applied research. Particular interests include time-series modelling and prediction, active learning, automated decision making, machine perception, and multi-agent systems.

The role mainly concerns research and teaching. For research, the successful candidate will have, or be expected to develop, a record of world-class research commensurate with the international reputation and top-rank research rating of the Department of Engineering. For teaching, responsibilities will include contributing to undergraduate and graduate courses, supervising final-year undergraduate and MPhil projects, and examining and supervising post-graduate students. There will inevitably be some administrative duties, but every effort is made to keep these to a minimum.

The Computational and Biological Learning Laboratory is part of the Information Engineering Division of the Department of Engineering. Research pursued in this Division includes Machine Learning, Computational Neuroscience, Machine Intelligence, Systems Biology, Control Engineering, Signal Processing and Communications, Information Theory, Speech and Language Processing, and Medical Imaging. Collaboration between researchers in these various fields is welcomed and encouraged.

Key Responsibilities

Research

The candidate will be expected to contribute to the research and teaching within Information Engineering. Assistant Professors are expected to develop their own research portfolio, including winning research grants and recruiting research students. Lecturers are expected to establish an independent theme of research, as well as collaborating with others in related fields.

Teaching

Almost all undergraduates in Engineering take a 4-year course leading to the MEng degree. In the first two years, courses cover the foundations of engineering common to all of the main disciplines. In the second two years, the courses are modular and become more specialised, especially in the 4th year where courses often include aspects of current research. In the 4th year, students also do a major project and all staff are able to propose and supervise projects. These can range from software development and basic experimentation through to mini-research projects.

The teaching responsibilities associated with this post lie across all four years of the undergraduate course, with an emphasis on 3rd and 4th year Information Engineering modules. The Department has extensive course offerings in areas of direct relevance to this position. The successful candidate can expect to contribute to courses related to machine learning and / or computer such as the 3rd year module in Inference (3F8), and 4th year modules in Deep Learning and Structured Data (4F10), Computer Vision (4F12), and Probabilistic Machine Learning (4F13). There will also be opportunities to teach courses and supervise students on the graduate level MPhil in Machine Learning and Machine Intelligence. Teaching duties are reviewed annually to ensure a fair allocation of load.

Person Profile

This section details the knowledge, skills and experience we require for the role.

Education, qualifications and Suitability	Educated to degree level, normally with a PhD in relevant specialist subject area Relevant Experience or potential since completion of degree and/or PhD
Specialist knowledge & skills	Compatibility with existing research activities within the Computational and Biological Learning Lab, and / or the Machine Intelligence Laboratory, and the Information Engineering Division Evidence of high quality research outputs Evidence of collaborations or potential for collaborations if an Early Career Researcher Evidence of funding or potential to obtain funding if an Early Career Researcher
Interpersonal & communication skills	Evidence of high quality talks and presentations (invited and conference) Evidence of teaching capability
Relevant experience	Teaching experience at undergraduate, graduate and post-experience levels Graduate student supervision and assessment (as appropriate for career stage)

Additional requirements	Desirable characteristics would include: <ul style="list-style-type: none"> • Willingness to lead research collaborations • Membership of relevant professional bodies • Experience of administrative roles/duties
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Terms and Conditions

Location	Department of Engineering, Trumpington Street, Cambridge CB1 2PZ
Working pattern	Full-time
Hours of work	There are no conditions relating to hours and times of work but you are expected to work such hours and days as are reasonably necessary for the proper performance of your duties. Your times of work should be agreed between you and your head of institution.
Length of appointment	The appointment to a University Assistant Professor will be for a probationary period of five years subject to satisfactory performance, with appointment to the retiring age thereafter.
Probation period	Five Years for a University Assistant Professor. The details of the Department's probationary scheme are made available on appointment.
Annual leave	Subject to compliance with the Statutes and Ordinances relating to leave, full time officers are entitled in any holiday year to take a minimum of 5.6 weeks annual paid holiday. These periods are inclusive of public holidays that fall outside Full Term.
Pension eligibility	Universities Superannuation Scheme (USS) Pension scheme details, including information about the legal requirement for the University to automatically enrol its eligible job holders into a qualifying workplace pension scheme from 1 March 2013, is available at: http://www.pensions.admin.cam.ac.uk/ .
Retirement age	For established academic staff, the University operates a retirement age which is at the end of the academical year in which the University officer reaches the age of 69.

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. If you need further information, you may find the Right to Work page within the 'Applying for a job' section of the University's Job Opportunities pages helpful (please see <http://www.jobs.cam.ac.uk/right/have/>).

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.

Application Process

To submit an application for this vacancy, please click on the link in the 'Apply online' section of the advert published on the University's Job Opportunities pages. This will route you to the University's Web Recruitment System, where you will need to register an account (if you have not already) and log in before completing the online application form. In addition to this, please ensure that you upload the application documentation as follows:

- Curriculum Vitae (CV)
- A full publications list, highlighting up to 5 publications you regard as most significant
- Statement (no more than two pages in total) covering professional, teaching and research experience and describing your future research plans

If you upload any additional documents which have not been requested, we will not be able to consider these as part of your application.

The closing date for applications is Monday 22 September 2025. If you have any questions about this vacancy or the application process, please contact the HR Office (hr-office@eng.cam.ac.uk, +44 (0) 1223 332615).

The interviewing panel will meet soon after the closing date in order to produce a short-list; references may be solicited. Short-listed candidates will be invited to visit the Department, give a short seminar/lecture and attend a formal interview. This process will take place on 4 and 5 November 2025.

Informal enquiries may be made to Prof. Carl Edward Rasmussen (cer54@cam.ac.uk) and Prof. Richard E. Turner (ret26@cam.ac.uk).

The Department of Engineering

The Department of Engineering is the largest department at the University of Cambridge and one of the leading centres of engineering in the world. Renowned for both its teaching and research, the Department's aim is to address the world's most pressing challenges with science and technology. To achieve this aim, the Department collaborates with other disciplines, institutions, companies and entrepreneurs. Cross-linking themes foster connections. A major philanthropic development programme within the Department's strategy will create new academic posts, fund new studentships, regenerate and extend facilities, and support outreach to schools.

Since its foundation in 1875, the Department of Engineering has grown to become the largest department in the University and the largest integrated engineering department in the UK with approximately 150 faculty, 260 contract research staff and research fellows, 650 research students, and 1200 undergraduates.

Growth throughout its history has been consistently strong. For instance, between 2000 and 2013, research expenditure tripled, the number of contract research staff more than doubled, and the number of research students nearly doubled. Rapid growth has been coupled with greater integration through the development of cross-linking themes and stronger connections with other disciplines.

Internationally, Cambridge leads the Times Higher Education Rankings for Engineering and Technology (2014-15) outside the USA, jockeying for pole position among the top four American institutions. The REF 2014 assessment of UK research showed that Cambridge has the greatest concentration of world-leading engineering research in the country and the best environment for engineering research with a perfect score unrivalled by any other general engineering submission. The combination of academic excellence and a superb environment enabled Cambridge to deliver the highest concentration of world-leading impact in general engineering, creating real benefits to industry and society more widely.

The Department has six academic divisions which represent core strengths. They build teams and facilities that can maintain and develop leading positions in engineering disciplines. The Head of Department is Professor Colm Durkan and the successful candidate will be assigned to Division F upon appointment. The Head of Division F is Professor Simon Godsill and research pursued in this Division includes Computational Neuroscience, Machine Learning, Systems Biology, Control Engineering, Signal Processing and Communications, Speech and Language Technology, Computer Vision, and Medical Imaging. Collaborations within and across divisions are encouraged which gives the Department greater flexibility in responding to new initiatives.

- A Energy, fluid mechanics and turbomachinery - build on research in fluid mechanics and thermodynamics to develop a systems view of energy generation and utilisation, particularly in ground and air transport, to mitigate environmental impact.
- B Electrical engineering - pursue fundamental electrical, electronic and photonic research at the material, device and system levels with a focus on creating integrated solutions in the fields of nanotechnology, sensing, energy generation, energy conversion, displays and communications.
- C Mechanics, materials and design - extend fundamental and applied research in mechanics, materials, and design, exploiting cross-disciplinary partnerships across the University; and build on existing strengths to develop excellence in bioengineering and healthcare systems research.
- D Civil engineering - advance the mechanics of civil and structural engineering systems within the broader context of the design, construction and operation of sustainable infrastructure and the stewardship of Earth's resources and environment
- E Manufacturing and management - develop new understanding of manufacturing technology, operations, strategy and policy, in close partnership with industry, in order to improve industrial performance.
- F Information engineering - develop fundamental theory and applications relating to the generation, distribution, analysis and use of information in engineering and biological systems.

The quality of the staff and research students within these divisions are the key to the Department's success. Their recruitment is driven by the aim to create "world-leading engineering knowledge," so the Department seeks and attracts the best candidates in the world. Academics are sought who can both increase the strength of a research discipline within a division and also connect across the Department through strategic themes. Recruitment is also used to maintain a healthy balance of new blood and experienced staff across the Department. Students and postdoctoral researchers are an important output of the Department, but also provide excellent gearing for academics to build research capacity, so further growth in numbers and improved training is planned.

The Department is committed to promoting gender equality as part of a landscape of encouraging diversity, tolerance and a culture of mutual support and there is a drive to increase the number of female academics (Women in Engineering). The dedicated Diversity Committee oversees equality, diversity and inclusion related activities in the Department, and holds regular events to promote Engineering to under-represented groups. The Department was first granted an Athena SWAN Silver Award in 2017, which was renewed in September 2020 to recognise the Department's ongoing commitment to advancing the careers of women in STEMM. The Department of Engineering continues to make excellent progress towards achieving gender balance amongst its staff and students. More information on the Athena SWAN Charter can be found [here](#).

More information on the Department can be found at www.eng.cam.ac.uk.

The University

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

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

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

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

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

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

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

About Us

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

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

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

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

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

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

*Professor Deborah Prentice,
Vice Chancellor 2023*

Working at the University

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

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

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

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

Equality and 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 groups, including the Women's Staff Network, Race Equality Network and LGBT+ Staff Network. More details are available here: <http://www.equality.admin.cam.ac.uk/>

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

Living in Cambridge

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 Broadlands 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/>.

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.

CAMbens employee benefits

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

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

Family-friendly policies

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

Other family-friendly support includes:

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

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

Your wellbeing

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

Development opportunities

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

Sabbatical Leave

Cambridge is generous in having statutory provision for leave of absence of one term for every six terms of service. Academic staff use this opportunity for study and research.

College Membership

Membership of a College adds an important social and many of the University's academic community find attractive. Appointment to a College fellowship is a separate matter from a University appointment. Most colleges expect their fellows to take part in undergraduate supervision and College administration, for which the College provides modest remuneration additional to University salary. Many academic staff will be invited to join a College as a teaching fellow, but it is not compulsory for academic staff to be a member of a College. The Head of Institution or senior colleagues can offer more advice.

Residence

It is a requirement of the role that you are resident in the University during term-time. Further information can be found here: <https://www.admin.cam.ac.uk/univ/so/2019/chapter11-section1.html#indexterm-d358e257>

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 HR Office, who are responsible for recruitment to this position, on 01223 332615 or by email on hr-office@eng.cam.ac.uk. Alternatively, you may contact the HR Business Manager responsible for the department you are applying to via hrenquiries@admin.cam.ac.uk