



Gatsby Computational Neuroscience Unit, UCL Research Associate (Training Fellowship - Theoretical Neuroscience)

One or more Training Fellowships are available within the Gatsby Computational Neuroscience Unit to undertake original high quality research in theoretical neuroscience, machine learning or at the intersection of these fields, under the mentorship of Unit faculty.

The Unit is a world-class centre for theoretical neuroscience and machine learning. It has significant interests across a range of areas in theoretical neuroscience, including the interpretation of neural data, population coding, perceptual processing, neural dynamics, neuromodulation, and learning; as well as in machine learning and artificial intelligence. There are strong links to experimental neuroscience and cognitive science groups within the Sainsbury-Wellcome Centre for Neural Circuits and Behaviour, as well as elsewhere in UCL, and at institutions around the world. Collaboration within and outside the Unit is actively encouraged and supported through the provision of a generous annual travel allowance to support conference, workshop and collaborative research visits.

The position is suitable for candidates with a doctoral degree and previous experience in theoretical neuroscience or machine learning research, who wish to advance their expertise under the guidance of Unit faculty. We are especially keen to recruit researchers with expertise in the modelling of perception or population-scale neural data.

Main duties and responsibilities:

- To plan and execute high quality research and to produce publications and other research output in line with personal objectives agreed on appointment and subsequently through the review process.
- To contribute to the national and international profile of the Unit through the submission of papers to appropriate journals and attendance and presentation of research findings at appropriate conferences.
- To prepare and present findings of research activity to relevant funding bodies and, as required, to colleagues for review, development or collaborative purposes.
- To attend internal and external seminars, conferences and workshops arranged by the Unit and aimed at sharing research outcomes, building interdisciplinary collaboration within and outside the Unit, and mutual education.
- As required, to prepare and submit research bids and proposals in existing and new areas of research.
- As required, to assist with the mentoring of research students (MPhil/PhD).
- If required, to undertake a limited amount of teaching in relation to the Unit's taught induction programme for first year research students and to assist with any associated administration and marking of exams and other procedural assessments.

- To contribute to the overall activities of the Unit as required and to carry out any other duties as are within the scope, spirit and purpose of the fellowships as requested by the mentor or Unit Director.
- To contribute positively in terms of general citizenship within the Unit. This will include helping plan and organise the Unit's seminar and workshop programmes and attending external visitors. It is expected that the fellow will foster interdisciplinary collaborations within, and maximise the didactic potential of, the Unit.
- To advance one's own professional and academic development.
- To actively follow and promote UCL policies, including its Equal Opportunities policies.
- To maintain an awareness and observation of Health & Safety and Fire Regulations.

Note: This fellowship description reflects the present requirements of the positions. As responsibilities change and develop, the description may be reviewed and amended in consultation with the postholder.

Person Specification

The following attributes are essential for appointment to the position.

Background, Qualifications and Experience:

- A PhD or equivalent doctoral degree in theoretical neuroscience, machine learning or an allied field, which must be awarded before the agreed start date for the position.
- Very strong quantitative educational preparation, focused on neuroscience, cognitive science, machine learning, statistics, computer science, physics or engineering.
- A detailed knowledge and understanding of the relevant scientific literature.
- Proven ability to conduct high quality research in an appropriate area, reflected in a strong publication record in respected journals and conferences, and, where relevant, awards indicating academic esteem.
- Proven experience of managing time and working to strict deadlines.

Skills:

- Strong mathematical, analytical and computational skills and the ability to apply these skills to neuroscience or machine learning.
- The ability to communicate effectively with colleagues verbally and in writing, in the course of academic and administrative duties
- The ability to present complex research in written and verbal forms to a range of audiences.

Personal Qualities:

- A commitment to high quality academic research and learning in the areas of theoretical neuroscience and machine learning.
- A commitment to fostering a positive learning environment for students.
- The ability to work independently and also as part of a team.
- A commitment to continuous professional and academic development.

- A commitment to UCL's policy of equal opportunity and a willingness to work harmoniously with colleagues and students of all cultures and backgrounds.

Further Particulars

Funding from the Gatsby Charitable Foundation is provided for fellowships as part of a continuing program to train a succession of postdoctoral researchers in theoretical neuroscience and machine learning. Where a position is funded in this way, the initial appointment will be for a period of between one and two years. To ensure the intellectual renewal of the unit, training fellows are not funded by the Foundation beyond a maximum three year period.

Salary

The appointment will be at a level appropriate to experience and achievement. Typically, appointments are made within the range £37,551 - £41,864 per annum (including London Allowance).

Probation

Appointments are subject to receipt of satisfactory references and a successful completion of the probationary period of nine months.

Holidays

Annual leave is 27 working days for a full-time fellow.

UCL also closes for a period at Christmas and Easter, at which times fellows benefit from a total of 6 'closure days' in addition to statutory Bank Holidays.

Travel allowance

The Unit provides all postdoctoral researchers with an annual travel allowance of GBP 2,500 to support attendance at conferences and workshops.

Relocation expenses

The Unit is able to offer assistance of up to GBP 1,000 towards relocation costs. Reimbursement is made in arrears against acceptable evidence of expenditure (original receipts).

About the Unit

The Gatsby Computational Neuroscience Unit, established at UCL in July 1998 with funding from the Gatsby Charitable Foundation, is a world-leading centre for research in theoretical neuroscience and machine learning.

The Unit provides a unique environment in which a critical mass of researchers interact closely with each other and with other world-class research groups in related departments at UCL. The closest of these is the new Sainsbury-Wellcome Centre for Neural Circuits and Behaviour with which the Unit shares a new purpose-built building. A cross-faculty Centre for Computational Statistics and Machine Learning opened at UCL in 2006, spanning the departments of Computer Science, Statistical Science and the Gatsby Unit. The Unit's collaborations, visitor and seminar programmes facilitate staff and student engagement with leading researchers from across the world. Established collaborations include links to groups at Stanford University, MIT, ETH Zurich, Carnegie Mellon University and the Hebrew University of Jerusalem.

Further information about the Unit may be found at: <http://www.gatsby.ucl.ac.uk>

About UCL

UCL is one of the UK's leading universities; a world-class multidisciplinary research and teaching institution, whose staff and former students have included 29 Nobel Prize winners. UCL is consistently ranked within the world's top ten universities (QS World University Rankings).

Founded in 1826, UCL was the first university in England to admit students regardless of race, religion or gender. It continues to thrive on the creativity and diversity of its community which today comprises 8,000 staff, and 12,000 undergraduates and 7,000 graduate students from 130 countries across the globe.

Constitutionally part of the federal University of London, UCL is in practice an independent university, with an annual turnover of over GBP 1000 million. Its 70 departments span arts and humanities, social and historical sciences, law, architecture and the built environment, engineering sciences, mathematical and physical sciences, life and clinical sciences, and medicine.

UCL was the top-rated university in the UK for research strength in the new Research Excellence Framework 2014 published in December 2014, by a measure of average research score multiplied by staff numbers submitted. UCL researchers received a 'grade point average' of 3.22 (out of 4) and submitted over 2,500 staff to be assessed in REF2014.

Situated at the heart of one of the world's greatest cities, UCL's historic central campus in Bloomsbury is within easy reach of rail and underground stations with links to Heathrow and Gatwick airports and is just minutes away from the Eurostar terminal at St. Pancras.

Further information about UCL may be found at: <http://www.ucl.ac.uk>

How to Apply

Applications must be made online via the UCL job vacancies website: <http://www.ucl.ac.uk/hr/jobs/>. Please be sure to attach to your online application a copy of your CV, statement of research interests, and full contact details (including e-mail addresses) for three academic referees. CVs should include: education history, details of current or most recent position and details of previous employment or fellowships. Incomplete applications will not be reviewed by the selection committee.

The closing date for applications is 23rd March, 2018.

Gatsby Unit – February 2018