1 Advertisement

Post Title: Research and Development Engineer
School/department: School of Life Sciences
Hours: Full time – 36.5 hours
Requests for <u>flexible working</u> options will be considered (subject to business need).
Contract: fixed term until at 28 February 2024
Reference: 9668
Salary: starting at £35,333 to £42,155 per annum, pro rata if part time
Placed on: 10 September 2022
Closing date: 07 October 2022. Applications must be received by midnight of the closing date.
Expected Interview date: TBC
Expected start date: October 2022

A position for an Operational Research Scientist is available jointly in the laboratories of Leon Lagnado and Tom Baden, funded by the Welcome Trust. The general aim of the projects are to understand the operation of neural circuits underlying visual processing. The post-holder will be responsible for i) modelling and mathematical and statistical analysis of data produced by our research in experimental neuroscience, and ii) the development of advanced optical microscopes for observing and manipulating neural activity, such as a two-photon scanning microscope combining holographic stimulation and a two-photon Bessel beam selective plane illumination microscope.

We are very active research groups (https://lagnadolab.com; https://badenlab.org) embedded in a strong research culture (http://www.sussex.ac.uk/sussexneuroscience/). We are located in the vibrant city of Brighton and London is 1 hour away.

Applicants must be educated to at least Masters level in an Engineering or Applied Physics discipline. They should have a background in data science and/or software development using Matlab and/or Python. Experience in optical characterization methods (photometry, reflectometry, spectroscopy) will be advantageous, as would some background in computational neuroscience.

Informal enquiries can be made to Leon Lagnado (l.lagnado@sussex.ac.uk) or Tom Baden (t.baden@sussex.ac.uk).

The University is committed to equality and valuing diversity, and applications are particularly welcomed from women and black and minority ethnic candidates, who are under-represented in academic posts in Science, Technology, Engineering, Medicine and Mathematics (STEMM) at Sussex.

Please note that this position may be subject to ATAS clearance if you require visa

sponsorship.

For full details and how to apply see our [vacancies page](#)

The University of Sussex values the diversity of its staff and students and we welcome applicants from all backgrounds.

2.   The School / Division

Please find further information regarding the school/division at
https://www.sussex.ac.uk/research/centres/sussex-neuroscience/

3.   Job Description

Job Description for the post of: **Operational Research Scientist/Programmer**

Department: Neuroscience

Section/Unit/School: Life Sciences

Location: CRPC 5.03

Grade: 7.2-7.6, depending on age and qualifications

Responsible to: Professor Leon Lagnado

PRINCIPAL ACCOUNTABILITIES

1.   To support individual and/or collaborative research activity resulting in high-quality publications;
2.   To develop advanced optical microscopes for neuroscience research.
3.   To develop analytical techniques and software for research in experimental and computational neuroscience.

KEY RESPONSIBILITIES

1. Research, Scholarship & Enterprise

1.2   Conduct research and development projects individually and in collaboration with others.

1.3   Develop research objectives and proposals for own or joint research, at acceptable levels, with assistance if required.

1.4 Conduct research and development projects individually and in collaboration with others.

1.5 Analyse and interpret research findings and draw conclusions on the outcomes.

1.6 Assist in the production of high-quality research outputs for publication in monographs or recognised high-quality journals, or performance/exhibition, as appropriate, and contribute to the School's REF submission at acceptable levels of volume and academic excellence.

1.7 Contribute to the preparation of proposals and applications to external bodies, for example for funding purposes.

1.8 Individually or with colleagues, explore opportunities for enterprise activity, knowledge exchange income and/or consultancy, where permissible.

1.9 Build internal contacts and participate in internal networks and relevant external networks in order to form relationships and collaborations.

1.10 Continually update knowledge and understanding in field or specialism, and engage in continuous professional development.

2. Contribution to School & University

2.1. Attend and contribute to relevant School and project meetings.

2.2. Undertake additional duties, as required by the Principal Investigator and/or Head of School.

3. Role-specific duties

3.1. To support and contribute to research aimed at understanding information transmission in the visual system.

3.2 To identify, develop and apply techniques to pursue the research objectives.

3.3. To present scientific work at seminars within the Laboratory.

3.4. To contribute to lab-wide discussions on developments within the field.

3.5. To contribute to drafting scientific papers, and contribute to the overall preparation of research for publication

3.6. To assist in the training of PhD students and other members of the laboratory where necessary.

This Job Description sets out current duties of the post that may vary from time to time without changing the general character of the post or level of responsibility entailed.

INDICATIVE PERFORMANCE CRITERIA

- A Masters or PhD degree or equivalent scholarly or relevant professional activity.

- Involvement in University-level research projects.

- Experience in computational neuroscience and software development.
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- Experience with design and implementation of characterization methods for solid state materials will be desirable for that role.
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4.   Person Specification

ESSENTIAL CRITERIA

1.   Normally educated to at least Masters level or other equivalent qualification, or appropriate level of experience, as appropriate to the discipline (see role-specific criteria below).

2.   Evidence of engagement in high-quality research activity.

3.   Strong presentation skills, with the ability to communicate effectively, both orally and in writing, with students, colleagues and external audiences.

4.   Ability to work individually on own initiative and without close supervision, and as part of a team.

5.   Ability to exercise a degree of innovation and creative problem-solving.

6.   Good organisational skills.

7.   Ability to prioritise and meet deadlines.

8.   Excellent IT and programming skills.

ESSENTIAL ROLE-SPECIFIC CRITERIA

1.   Masters in an Engineering discipline or Applied Physics

2.   Strong background in software development using Matlab and/or Python.

3.   A strong work ethic.

4.   Commitment to high-quality research in Neuroscience.

DESIRABLE CRITERIA

1. Experience in optical characterization methods (photometry, reflectometry, spectroscopy) will be advantageous.

2. Experience in data science and/or computational/theoretical neuroscience.