



1 Advertisement

Post Title: Research Fellow in Data Science

School/department: School of Mathematical and Physical Sciences - Department of Physics and Astronomy

Hours: full time or part time hours considered up to a maximum of 1 FTE. Requests for [flexible working](#) options will be considered (subject to business need).

Contract: fixed term until 31 July 2020

Reference: 2369

Salary: starting at £33,797 and rising to £40,322 per annum

Closing date: 28 October 2019. Applications must be received by midnight of the closing date.

Expected interview date: Monday 4 November 2019

Expected start date: asap

The University of Sussex invites applications for a Postdoctoral Research Fellow in the Data Intensive Science Centre.

This position is funded by the Science Technology and Facilities Council (STFC) and University of Sussex and is intended to produce socio-economic benefit from fundamental research.

Your task will be to apply advanced data science and machine learning techniques to a variety of problems.

One particular ongoing project is using Earth Observations to improve hazard early warning models in Kenya (AstroCast).

The AstroCast project will continue the development and implementation of models for forecasting the vegetative condition from Earth Observations. You will be part of an interdisciplinary team of astronomers and climate and land change scientists and work with government and non-government agencies in Kenya.

You will be encouraged to develop new interdisciplinary research projects within and outside the university with a view to making this role sustainable.

You will be someone who has the imagination and technical skills to find creative, collaborative solutions to these important problems.

You will work within the Data Intensive Science Centre <http://www.sussex.ac.uk/discus/>, the Astronomy Centre, <http://astronomy.sussex.ac.uk> and as part of the Schools of Mathematical and Physical Sciences, and Global Studies (ranked number 1 in the world for development studies in QS 2018).

Enquiries should be addressed to Prof. Seb Oliver (S.Oliver@Sussex.ac.uk).

Candidates should complete an application form and include a CV and a statement of research interests and skills with their application.

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 <http://www.sussex.ac.uk/mps/>

3. Job Description

Job Description for the post of: Research Fellow in Data Science

Department: Physics & Astronomy

Section/Unit/School: Mathematical & Physical Sciences

Location: Pevensey II

Grade: 7

Responsible to: Lead Academic (Data Intensive Science Centre at the University of Sussex)

Responsible for: N/A

Key contacts: Members of research group, members of faculty within the School and University.

Role description: Research Fellow I is an early career-grade research position. Post-holders will be expected to contribute to the work of the research team, and also to develop their research skills with support from more experienced members of staff.

PRINCIPAL ACCOUNTABILITIES

1. To engage in individual and/or collaborative research activity resulting in high-quality publications; and to develop research funding and knowledge exchange income individually or in collaboration with others, as appropriate, depending on the size and scope of the bid.
2. To contribute to School teaching activities.

KEY RESPONSIBILITIES

1. Research, Scholarship & Enterprise

- 1.1 Develop research objectives and proposals for own or joint research, at acceptable levels, with assistance if required.
- 1.2 Conduct research projects individually and in collaboration with others.
- 1.3 Analyse and interpret research findings and draw conclusions on the outcomes.
- 1.4 Produce 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.
- 1.5 Contribute to the preparation of proposals and applications to external bodies, for example for funding purposes.
- 1.6 Individually or with colleagues, explore opportunities for enterprise activity, knowledge exchange income and/or consultancy, where permissible.
- 1.7 Build internal contacts and participate in internal networks and relevant external networks in order to form relationships and collaborations.
- 1.8 Continually update knowledge and understanding in field or specialism, and engage in continuous professional development.

2. Teaching & Student Support

- 2.1 Undertake teaching duties, if required.
- 2.2 Assist in the assessment of student knowledge and supervision of student projects if required.
- 2.3 Assist in the development of student research skills, for example as part of a postgraduate supervision team.

3. Contribution to School & University

- 3.1 Attend and contribute to relevant School and project meetings.
- 3.2 Undertake additional duties, as required by the Principal Investigator and/or Head of School.

4. Role-specific duties

- 4.1 Develop and conduct research leading to papers in refereed journals exploiting opportunities available in accordance with the research identified through activities of the Data Intensive Science Centre
- 4.2 Implement research from Data Intensive Science Centre projects to achieve significant social or economical benefit
- 4.3 Instigate new data intensive projects through formal and informal collaboration and discussion with researchers across the university.
- 4.4 Promote results of research through participation in workshops and conferences

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 PhD or equivalent scholarly or relevant professional activity
- Pursuing a line of independent research within a research group.
- Publishing research (either from a recently completed PhD or new original research).
- Other forms of externally recognised professional practice of creative output of a standing equivalent to regular publication of original research.
- Initiating, developing or participating in links between the University and external bodies such as business and industry, the professions, community organisations and policy-makers.
- Evidence of successful engagement in teaching or supervision.

4. Person Specification

ESSENTIAL CRITERIA

1. Normally educated to doctoral 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. Excellent 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. Excellent organisational and administrative skills.
7. Ability to prioritise and meet deadlines.
8. Excellent IT skills.

ESSENTIAL ROLE-SPECIFIC CRITERIA

1. Emerging track record of high-quality publications in reputable journals and other appropriate media of similar standing.
2. Have expert knowledge on advanced statistical data analysis, machine learning techniques e.g. Bayesian inference and probabilistic programming.
3. Have good problem solving skills.
4. Experience in data analysis tasks similar to those described in work package task described in role-specific duties (above).
5. Demonstrable expertise in programming.
6. Strong writing and communication skills.

DESIRABLE CRITERIA

1. Excellent expertise in python language.
2. Experience of developing code for other users.
3. Experience of analysis of Earth Observation data.
4. Experience in supervision of projects.

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.