Role profile

<table>
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<tr>
<th>Job title</th>
<th>Research Associate/Research Fellow in Farm Animal Informatics</th>
<th>Job family and level</th>
<th>Research &amp; Teaching Level 4 (Appointment will be Level 4 Career Training Grade where an appointment is made before PhD has been completed)</th>
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</thead>
<tbody>
<tr>
<td>School/Department</td>
<td>School of Veterinary Medicine and Science</td>
<td>Location</td>
<td>Sutton Bonington campus</td>
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Purpose of role

The occupant of this role will join an interdisciplinary research group and take a key role in creating data pipelines and conducting analysis for ongoing funded research on animal personality and precision livestock health led by Professor Jasmeet Kaler, Professor of Epidemiology and Precision Livestock Informatics.

The focus of the role will be to pre-process and merge data (movement, feeding, space use, location, temperature etc) from various technologies/sensors on calf behaviours, health and physiology. Using these datasets to develop computational algorithms to extract personality traits and develop predictive models of key aspects of calf health outcomes, performance and welfare. The successful applicant would be expected to participate in areas of research including publication, supervision of students as well cover teaching and assessments as required.

Main responsibilities

(Primary accountabilities and responsibilities expected to fulfil the role)

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<th>% time per year</th>
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<td>90%</td>
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**Research activities**
- To create data pipelines and pre-process calf behavioral, physiological and health data
- To collate and merge datasets and develop computational algorithms to extract personality traits for calves
- To develop self-learning machine learning algorithms for range of health and welfare outcomes and evaluate their predictive performance
- Take a key role in writing peer reviewed publications, reports and presenting relevant material at local, national and/or international conferences
- Working independently and as part of a larger team of researchers

**Administrative/Teaching**
- Any administrative duties appropriate to the grade and role in support of the administration of the School
- Contribute to School marketing and recruitment activities (including outreach, open days and admissions).
- Cover teaching and assessments as required by the line manager/school
- Help supervise undergraduate research projects as required

10%
## Person specification

<table>
<thead>
<tr>
<th>Skills</th>
<th>Essential</th>
<th>Desirable</th>
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| ▪ Proficiency in writing code for data import & manipulation  
▪ Data analytic skills using R or Matlab or Python  
▪ Ability to undertake day-to-day management of a significant research project  
▪ Ability to work both independently and in a team  
▪ Excellent written and oral communication skills in English | ▪ Willing to assist staff and students as required |

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<th>Knowledge and experience</th>
<th>Essential</th>
<th>Desirable</th>
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| ▪ Knowledge and experience of machine learning, statistical models  
▪ Experience manipulating datasets | ▪ Interest in developing new approaches, models, techniques or methods |

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<tr>
<th>Qualifications, certification and training (relevant to role)</th>
<th>Essential</th>
<th>Desirable</th>
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<tr>
<td>▪ PhD (or near completion) equivalent in numerate or scientific subject (Data Science, Computer Science, AI, Veterinary or Agricultural science animal behaviour, welfare), or the equivalent professional qualifications and experience in data analytics</td>
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The University of Nottingham is focused on embedding equality, diversity and inclusion in all that we do. As part of this, we welcome a diverse population to join our work force and therefore encourage applicants from all communities, particularly those with protected characteristics under the Equality Act 2010.
**Expectations and behaviours**

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University’s strategy, vision and values. The following are essential to the role:

**Valuing people**
Is always equitable and fair and works with integrity. Proactively looks for ways to develop the team and is comfortable providing clarity by explaining the rationale behind decisions.

**Taking ownership**
Is highly self-aware, looking for ways to improve, both taking on board and offering constructive feedback. Inspires others to take accountability for their own areas.

**Forward thinking**
Driven to question the status quo and explore new ideas, supporting the team to “lead the way” in terms of know-how and learning.

**Professional pride**
Sets the bar high with quality systems and control measures in place. Demands high standards of others identifying and addressing any gaps to enhance the overall performance.

**Always inclusive**
Ensures accessibility to the wider community, actively encouraging inclusion and seeking to involve others. Ensures others always consider the wider context when sharing information making full use of networks and connections.

**Key relationships with others**

- **Line manager**
  - Professor of Epidemiology and Precision Livestock Informatics

- **Role holder**
  - Research Associate/Fellow

- **Key stakeholder relationships**
  - Undergraduate students
  - Colleagues
The School of Veterinary Medicine and Science:

It is our intent to make significant leading contributions to both veterinary research and teaching within the context of valid relevance and application to the wider veterinary profession. Research is central to the activities of the School, both in terms of maintaining ourselves at the forefront of national and international efforts in veterinary medicine but also as an integral part of the training and education for undergraduate and postgraduate students.

Research is central to the activities of the School of Veterinary Medicine and Science at the University of Nottingham. In the 2014 Research Excellence Framework assessment, 97% of work submitted by the Schools of Veterinary Medicine and Science and Biosciences was judged to be of international quality, and 37% of work as world-leading (4-star). Research environment was ranked top of all institutions within our Unit of Assessment (Agriculture, Veterinary and Food Science).

Further information about the School of Veterinary Medicine and Science is available at [http://www.nottingham.ac.uk/vet/index.aspx](http://www.nottingham.ac.uk/vet/index.aspx)