



Job title	Research Associate/Fellow (Title will be 'Research Associate' where an appointment is made before PhD is completed)	Job family and level	Research and Teaching Level 4 (Appointment will be Level 4 Career Training Grade where an appointment is made before PhD has been completed)
School/ Department	School of Psychology	Location	University Park Campus

Purpose of role

You will join the Humphries' group on the BBSRC-funded project "The computational basis of foraging". Its goal is to develop rigorous computational accounts of how humans and other animals learn and make foraging decisions, in collaboration with the groups of Matthew Apps (Birmingham) and Nathan Lepora (Bristol).

You will develop a toolbox of computational models of foraging decisions, validate them against the known behaviour of foragers, and test if they can account for the behaviour of humans, primates, and rodents in a range of reward- and information-based foraging tasks. You will also support the development and activities of an international network of foraging researchers. You will be responsible for disseminating their work at conferences and writing up your research for journal publication.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time per year
1	Develop computational models of foraging <ul style="list-style-type: none"> ▪ Implement reinforcement learning and accumulation models of foraging decisions ▪ Create approaches to fit these models to data ▪ Validate on synthetic data 	30%
2	Test hypotheses for foraging decisions <ul style="list-style-type: none"> ▪ Fit foraging models to experimental datasets from human, primate, and rodent tasks ▪ Contrast model performance 	30%
3	Disseminate research <ul style="list-style-type: none"> ▪ Produce and write-up work of suitable quality for publication in leading peer-reviewed journals ▪ Present research findings at relevant meetings 	25%
4	Co-ordinate with collaborators <ul style="list-style-type: none"> ▪ Matthew Apps (Birmingham) & Nathan Lepora (Bristol) ▪ Training visits to these labs 	5%
5	Develop research leadership	10%

	<ul style="list-style-type: none"> ▪ Horizon scan: keep up to date on the scientific literature relating to (and around) the project ▪ Contribute to the research group e.g. assist in the supervision of PhD and undergraduate students ▪ Co-organise research meetings 	
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Person specification

	Essential	Desirable
Skills	<ul style="list-style-type: none"> ▪ Good programming skills in MATLAB and/or Python ▪ Ability to build relationships and collaborate with others ▪ Scientific writing to a high standard ▪ Ability to manage your own research on a day-to-day basis 	<ul style="list-style-type: none"> ▪ Ability to communicate complex ideas to non-experts
Knowledge and experience	<ul style="list-style-type: none"> ▪ Experience of computational neuroscience ▪ A track-record of high-quality research, as evidenced, for example, by published journal papers, pre-prints, or refereed conference papers. 	<ul style="list-style-type: none"> ▪ Knowledge of reinforcement learning and/or formal models of decision-making (e.g. diffusion models)
Qualifications, certification and training (relevant to role)	<ul style="list-style-type: none"> • Hold or be near completion of a PhD in a relevant discipline (computational neuroscience, physics, computer science, or engineering). 	



Athena
SWAN
Silver Award



Race
Equality
Charter
Bronze Award



COMMITTED



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 friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
- Taking ownership** Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
- Forward thinking** Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
- Professional pride** Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
- Always inclusive** Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

Key relationships with others

