

UNIVERSITY OF LINCOLN JOB DESCRIPTION

JOB TITLE	Research Associate in Fruit Perception (Robofruit)				
DEPARTMENT	School of Computer Science				
LOCATION	Brayford Pool				
JOB NUMBER	COS753	GRADE	7	DATE	June 2020
REPORTS TO	Dr Amir Ghalamzan Esfahani				

CONTEXT

The University of Lincoln is seeking to appoint a new Research Associate to join a project. The Robofruit project aims to develop a highly reliable strawberry perception for fruit manipulation. We will use state-of-the-art AI approach to implement deep CNN models for strawberry perception. We will have the chance to test our developed technology in the real working environments including strawberry polytunnel at the University of Lincoln.

JOB PURPOSE

The University of Lincoln is seeking a high calibre candidate to appoint for Postdoctoral Research Associates (PDRA) within Lincoln Centre for Autonomous System (L-CAS), the world's leading centre in agri-food robotics. This 14-months project aims to develop a fruit perception system for detecting ripe strawberries and estimating their weights.

The successful candidate will contribute to the University's ambition to achieve international recognition as a research-intensive institution and will be expected to deliver the strawberry detection and weight estimation system as well as design, conduct and manage original research in the above subject areas as well contribute to the wider activities of L-CAS. Evidence of authorship of research outputs of international standing is essential, as is the ability to work collaboratively as part of a team, including excellent written and spoken communication skills. Opportunities to teach and supervise postgraduate students, including our MSc programme in Robotics and Autonomous Systems, may also be available to outstanding candidates.

We are looking to recruit a high calibre postdoctoral Research Associate with relevant experience and/or a strong interest in research areas such as:

- * Robotic vision;
- * Deep learning;
- * Computer vision;
- * Robotic grasping and manipulation;
- * System integration, including ROS.

The post holder may be required to help supervise the work of some junior researchers. Applicants should have (or expect to soon obtain) a PhD in a relevant area. You must have excellent mathematical and coding skills (C++/Python, ROS). The Research Associate offers the opportunity to engage in national collaboration within an ambitious team, to work with state-of-the-art robotic hardware and software, and to benefit from excellent support to produce and disseminate original research contributions in the leading international conferences and journals. This post will be fixed term for one year where the extension will be subject to securing further funding.

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The post-holder will benefit from excellent facilities, equipment and ready-made links to our extensive network of industry partners across the agri-food chain and collaborative team working environment.

KEY RESPONSIBILITIES

Literature Surveys
Undertake literature surveys and other investigations of the state-of-the-art, and prepare reports as required.
Programme of Research
Design and undertake programme of research under the direction of the Principal Investigator, demonstrating a significant level of autonomy. Lead in the production of high quality research outputs, including reports, papers and other publications of national/international standing.
Project Management
Perform project management activities, planning, scheduling, monitoring and reporting on progress of research projects.
Liaison and Networking
Identify and liaise with internal and external collaborators, and with colleagues in the Department, maintaining positive and effective working relationships.
Internal Research Activities
Participate in and help to organise internal research activities, including seminars, research meetings and conferences.
Continuous Professional Development
Undertake continuous professional development activities.
Grant Applications
Contribute to the production of grant applications.
Teaching Support
Engage in teaching support activities, up to a maximum of six hours per week, possibly including leading a small number of units (no more than two per annum). Aid in the supervision of postgraduate research students.

In addition to the above, undertake such duties as may reasonably be requested and that are commensurate with the nature and grade of the post.

ADDITIONAL INFORMATION

Scope and dimensions of the role

Applicants should have, or expect to soon obtain, a PhD (or equivalent) in a relevant area. You must have excellent mathematical and coding skills (C++/Python, ROS, PCL, OpenCV). The Research Fellowship offers the opportunity to engage in international collaboration within an ambitious team, to work with state-of-the-art robotic hardware and software, and to benefit from excellent support to produce and disseminate original research contributions in the leading international conferences and journals.

Key working relationships/networks

Internal	External
<ul style="list-style-type: none">• Principal Investigator• Head of Research Centre• Head of School• Other research and academic staff within the school	<ul style="list-style-type: none">• Research collaborators• Sponsors and clients

UNIVERSITY OF LINCOLN PERSON SPECIFICATION

JOB TITLE	Research Associate	JOB NUMBER	COS753
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Selection Criteria	Essential (E) or Desirable (D)	Where Evidenced Application (A) Interview (I) Presentation (P) References (R)
Qualifications:		
PhD or equivalent (good candidates may be accepted with a PhD pending, subject to publication record)	E	A
Extensive knowledge specific to project/area	E	A/I
Experience:		
Extensive experience of relevant research methods	D	A/I
Authorship of research outputs of national/international standing	D	A/I
Experience of research in specific project area	E	A/I
Teaching support	D	A/I
Skills and Knowledge:		
Ability to design, conduct and project manage original research in the subject area	E	A/I
Excellent written communication, including the ability to write reports and research outputs	E	A/I
Ability to prioritise own workload and work to specified deadlines under pressure	E	A/I
Ability to communicate complex subjects orally	E	A/I
Skills specific to project/area	E	A/I
Competencies and Personal Attributes:		
Flexible approach to workload	E	I
Ability to work on own and as part of a team	E	I
Enthusiasm and commitment	E	I
Business Requirements:		

Essential Requirements are those, without which, a candidate would not be able to do the job. **Desirable Requirements** are those which would be useful for the post holder to possess and will be considered when more than one applicant meets the essential requirements.

Author	Amir Ghalamzan	HRBA	SP
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