

Research Role Profile

Job Title:	Research Fellow B on Agentic AI and Verification
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Responsible to:	Head of research group, or principal investigator
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Responsible for:	Responsibility for staff within own research group
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Job Summary and Purpose
To plan and deliver research in accordance with the specified research project. To contribute to securing funding for own research projects and for projects for those staff under their direct supervision.

Main Responsibilities/Activities
To contribute to the development of the research of the Faculty, by planning and carrying out research activity within a specified area, often in collaboration with colleagues. To take a significant role in planning, co-ordinating and implementing research programmes and, where appropriate, commercial and consultancy activities. To take lead responsibility for a small research project or identified parts of a large project. This may include planning fieldwork, data analysis and evaluation and laboratory experimentation. To make decisions about research programmes and methodologies, often in collaboration with colleagues, and to resolve the problems of meeting research objectives and deadlines. To develop new concepts and ideas to extend intellectual understanding. Assess, interpret and evaluate the outcomes of research, and develop ideas for the application of research outcomes. To take a role in the regular publication of results in appropriate journals, in giving presentations at national and/or international conferences, and in other outputs as required and/or appropriate. To develop innovative research proposals (as a self-contained item or as part of a broader programme), identifying sources of funding, submitting funding bids, and gaining positive reviews for these. Promoting own area of research. Continually to update knowledge and develop skills. To extend, transform and apply knowledge acquired from scholarship to research and appropriate external activities. To carry out management and administrative tasks associated with specified research funding, including managing and developing staff within their projects; risk assessment of project activities; organisation of project meetings and documentation; management of resources, preparation of annual reports, and management or monitoring of research budgets. To oversee and implement procedures required to ensure accurate and timely formal reporting and financial control. To undertake liaison with external organisations including equipment manufacturers, steering committees, associated academic facilities and commercial users. To contribute to teaching within the Faculty by carrying out student supervision, demonstrating or lecturing duties within the post holder's area of expertise. May be required to contribute to the supervision of research students.

Person Specification

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The post holder must have:

Normally a doctoral degree in a relevant discipline, together with appropriate experience of working in a similar area of work.

The post holder will need to demonstrate a high level of competence and independent standing in research by being nationally recognised within their area of discipline, publishing regularly in recognised appropriate journals and attracting research funding for their own work or for other staff within the research group.

Relationships and Contacts

The post holder may have a key responsibility to the principal investigator, with prime responsibility for reporting and liaison with external funding bodies or sponsors. As a senior member of the project team, the post holder will also supervise the activities of research and technician staff within the particular research group

Special Requirements

To be available to participate in fieldwork as required by the specified research project.

All staff are expected to:

- Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities policy.
- Help maintain a safe working environment by:
 - Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand
 - Following local codes of safe working practices and the University of Surrey Health and Safety Policy
- Undertake such other duties within the scope of the post as may be requested by your Manager.

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Addendum

This document provides additional information relating to both specific aspects of the post/faculty and any post specific person specification criteria. The information contained within this document should always be read in conjunction with the accompanying generic Job Purpose.

Job Title: Senior Research Fellow on Agentic AI and Verification

Background Information/Relationships

Agentic-seL4 is a 15-month research grant that aims to build a capability-based sandbox for AI agents on top of the formally verified seL4 microkernel and prove the security properties that follow using AI-assisted theorem proving to do it at scale. The £3.2m program is funded by ARIA and led by Prof Brijesh Dongol (University of Surrey) alongside collaborators from the Universities of Sheffield and Melbourne, as well as Proofcraft in Sydney. Further information about the project can be found at our webpage: <https://agentic-seL4.github.io/>.

Person Specification

This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role. This is in addition to the criteria contained within the accompanying generic Job Purpose.

Qualifications and Professional Memberships	Essential/ Desirable
Applicants will possess a relevant PhD or equivalent qualification/experience in a related field of computer science.	E
Technical Competencies (Experience and Knowledge)	Essential/ Desirable
The successful applicant will have excellent research and communication skills (both written and verbal)	E
The successful applicant will have experience of technical research and make presentations at conferences and other events.	E
The successful applicant will possess sufficient specialist knowledge to develop research programmes and methodologies.	E
Supervise the work of others and act as team leader as required.	D
Applicants will be able to collect and analyse qualitative and quantitative data and write up findings in diverse formats for different target audiences.	E
Have experience in working with non-academic stakeholders and engaging in knowledge exchange activities	E

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The successful applicant will have excellent research and communication skills (both written and verbal)	E
Special Requirements	Essential/ Desirable
Willingness and ability to work outside of regular office hours when required	E
Willingness and ability to travel to attend meetings held off University premises	E
Key Responsibilities This document is not designed to be a list of all tasks undertaken but an outline record of any faculty/post specific responsibilities. This should be read in conjunction with those contained within the accompanying generic Job Purpose.	
1. To undertake a range of tasks related to the Agentic-seL4 program of work, in particular to help write project reports and papers for academic journals and non-academic outlets. 2. Take responsibility for planning, preparation, execution, and reporting of the research outputs ensuring deliverables across all partners are met according to research plan and collaboration agreement. 3. Attend Agentic-seL4 meetings and present findings to a wide range of stakeholders. 4. Liaise with the principal and co-investigators to ensure they are fully briefed at all times highlighting areas of resource concern as well as issues and actions relating to the ongoing status and successful completion of the project. 5. Work across different collaboration teams to contribute to the development of the research project establishing and maintaining relationships with key internal and external stakeholders. 6. Identify and establish collaboration opportunities for the development of the research project with industry, academic and government, matching needs and challenges of the research project. 7. Organise meetings, interviews and events within the remit of the research project. 8. Ensure alignment with research at Surrey as well as research across and operation activities and to support events and initiatives by working closely with the Agentic-seL4 team. 1. Liaise Agentic-seL4 team including partners at Sheffield and Melbourne. 2. Work closely, sensitively and collaboratively with a wide range of team members, project partners and stakeholders.	
N.B. The above list is not exhaustive.	